Air Live®
Powered by OvisLink Corp.

AirCam WN-150CAM/ IP-150CAM

Wireless N 150Mbps Dual Stream IP Camera / Fast Ethernet Dual Stream IP Camera

User's Manual

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Europe – EU Declaration of Conformity

These devices compile with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC: This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services. This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 11.

IMPORTANT NOTE

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

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Table of Contents

1. Product Overview 1

1.1. Introduction 1

1.2. Basic Connection 3

1.3. Application 4

2. Hardware Installation 1

2.1. Safety Instruction 1

2.2. Minimum System Requirement 3

2.3. Package Contents 4

2.4. Physical Description 5

2.4.1. Front View 5

2.4.2. Bottom View 6

2.5. Mounting and Cable Connecting 7

3. Easy Access 9

3.1. Web Browsers 9

3.1.1. Windows Web Browsers 9

3.1.2. Mac Safari 10

3.2. Mobile Phone Viewing 13

3.2.1. Using IP Camera via iPhone 13

3.2.2. 3G Mobile Phone Streaming 14

3.2.3. 2.5G Mobile Phone WAP 14

3.2.4. 2.5G Mobile Phone Browser 15

3.3. Windows Live Messenger 15

4. Live View 18

4.1. Live View Control Panel 18

4.2. Setting 19

4.3. Client Setting 21

4.4. Image Setup 22

5. Setting 23

5.1. System 23

5.1.1. Information 23

5.1.2. Date/Time 23

5.1.3. Account 25

5.1.4. System Log 26

5.1.5. Initialize 27

5.2. Camera 28

5.2.1. General 28
5.2.2. MPEG4 29
5.2.3. MJPEG 33
5.3. Network 34
5.3.1. Information 34
5.3.2. PPPoE 35
5.3.3. DDNS 36
5.3.4. UpnP 38
5.3.5. IP Notification 39
5.3.6. WPS 40
5.3.7. Wireless 41
5.3.8. Messenger 43
5.4. Events 44
5.4.1. FTP Client 44
5.4.2. SMTP 49
5.4.3. Network Storage 53
5.4.4. Motion Detection 58
5.4.5. Schedule 59
5.5. Help 60
6. Appendix 62
Appendix A. - Frame Rate and Bitrate Table 62
Appendix B. - Storage Requirement Table 64

1 Product Overview

1.1. Introduction

The **IP-150CAM/WN-150CAM** is an ultra-compact IP Camera equipped with a high sensitivity progressive scan CMOS sensor, achieving high image quality and superior low-light performance. **WN-150CAM** also supports 802.11b/g/n wireless connection with WPS.

- **Key Features:**
  - Maximum Resolution 640x480 (VGA)
  - DDNS Supported
  - Simultaneous MPEG-4 and Motion JPEG video stream
  - up to flexible 30 fps in all resolution
  - **Wireless (IEEE 802.11g/b/n with WPS) Networks Connection (WN-150CAM Only)**

- Two-way Audio with Built-In Microphone
- **Support Mac OS**
- **Support iPhone**
- **Support Live Video Viewing on Windows Live Messenger**
- Mobile Phone Streaming Live Video through 3GPP / ISMA / RTSP
- Mobile Phone Live Image through 2.5 WAP
- Multi-level Password Protection for Restricting Camera Access
- ·Built-In Multi-Window Motion Detection (3 detection areas)
- Video Buffer makes the Streaming Smoother
- **Support UPnP**
- **Free Bundled Web-based 9 Channel Surveillance Software (CamPro Express 64)**

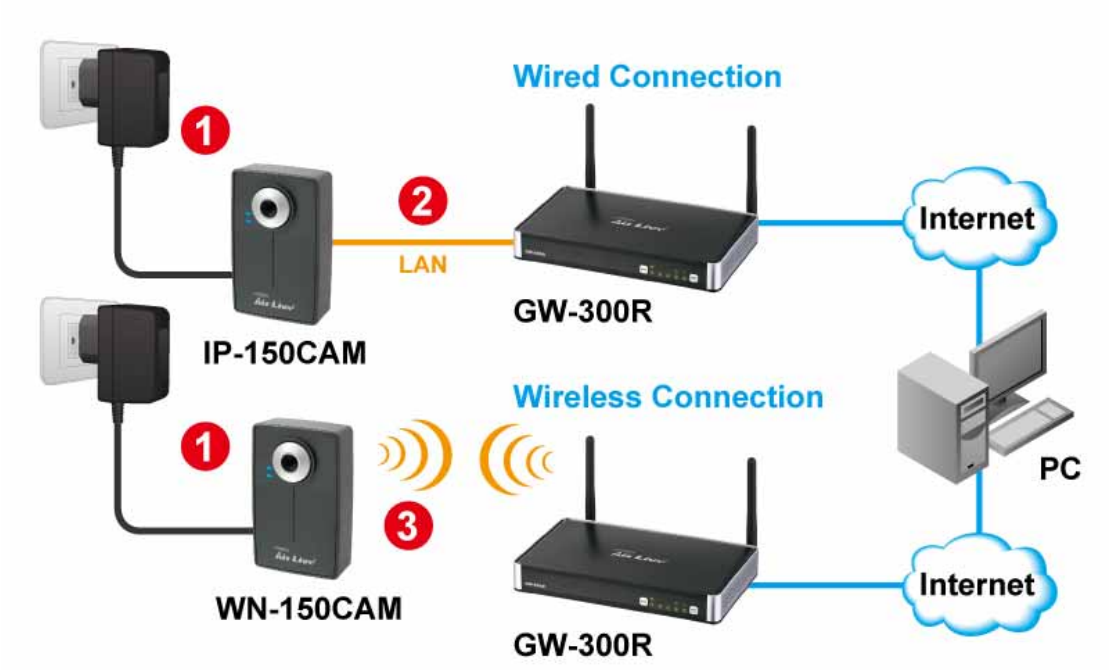
1.2. Basic Connection

- **Wired Connection**

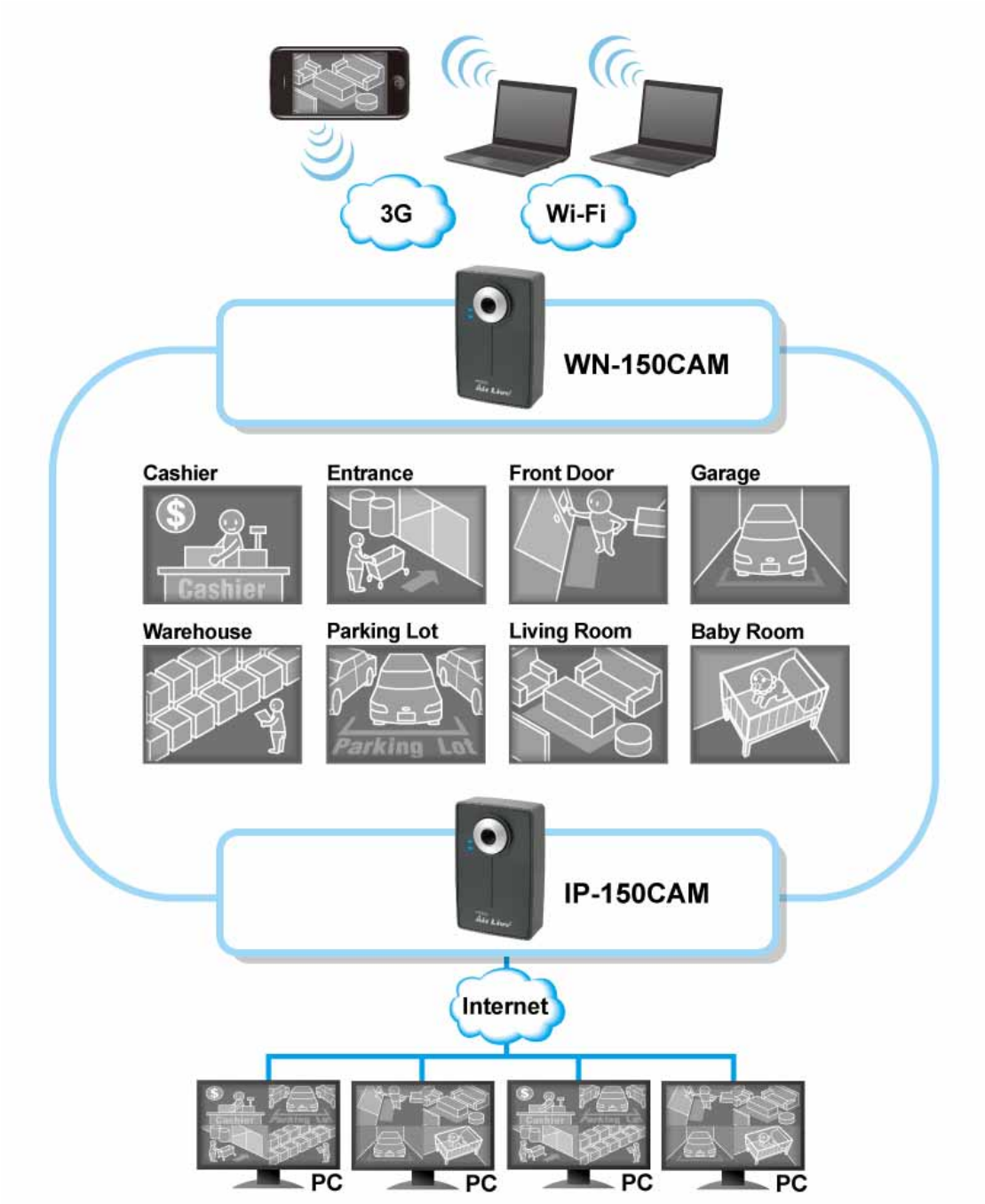
1. Connect the power adaptor to IP Camera.
2. Connect IP Camera' Ethernet port to your Hub / Switch / Router.

- **Wireless Connection (Only WN-150CAM)**

1. Connect the power adaptor to IP Camera.
2. Connect to Wi-Fi.



1.3. Application



2 Hardware Installation

2.1. Safety Instruction

- **Before you use this product**

This product has been designed with safety in mind. However, the electrical products can cause fires which may lead to serious body injury if not used properly. To avoid such accidents, be sure to heed the following.

- **Legal Caution**

Video and audio surveillance can be forbidden by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

- **Don't open the housing of the product**

Don't try to open the housing or remove the covers which may expose you to dangerous voltage or other hazards.

- **Don't use the accessories not recommend by the manufacturer**
- **Heed the safety precautions**

Be sure to follow the general safety precautions and the “Operation Notice.”

- **Operation Notice - Operating or storage location**

Avoid operating or storing the camera in the following locations:

- Extremely hot or cold places
  (Operating temperature: 0 °C to + 50 °C [32 °F to 122°F])
- Exposed to direct sunlight for a long time, or close to heating equipment (e.g., near heaters)
- Close to water (e.g., near a bathtub, kitchen sink, laundry tub)
- Close to sources of strong magnetism
- Close to sources of powerful electromagnetic radiation, such as radios or TV transmitters
- Locations subject to strong vibration or shock

- **In case of a breakdown**

In case of system breakdown, discontinue use and contact your authorized dealer.

- **In case of abnormal operation**

If the unit emits smoke or an unusual smell, if water or other foreign objects enter the cabinet, or if you drop the unit or damage the cabinet:

1. Disconnect the cable and the connecting cables.
2. Contact your authorized dealer or the store where you purchased the product.

- **Transportation**

When transporting the camera, repack it as originally packed at the factory or in materials of equal quality.

- **Ventilation**

To prevent heat buildup, do not block air circulation around the device.

- **Cleaning**

Use a soft, dry cloth to clean the external surfaces of the device. Stubborn stains can be removed using a soft cloth dampened with a small quantity of detergent solution, then wipe dry.

Do not use volatile solvents such as alcohol, benzene or thinners as they may damage the surface

2.2. Minimum System Requirement

Item	Requirements
CPU	Pentium 4 1600MHz (or equivalent AMD)
Graphic Card	64 MB RAM graphic cards(or equivalent on-board graphic cards)
RAM	512 MB
Operating System	Windows 98, Windows ME (Please see Note) Windows2000, 2003, XP, Vista, Windows 7, Mac OS X Leopard
Web Browser	Internet Explore 6 or later

Note

1. If you are using Windows 98 or Windows ME, please install IP Installer before using WEB UI to ensure the system runs normally.
2. If you can't view the record video file, please install Xvid codec while installing Intelligent IP Installer. (For Windows 98, ME or 2000 server, the codec might not work properly. You'll need to download Xvid codec 1.0 from the internet.

3. Please always update the latest Windows component. (Net Framework, Windows Media Player, Enhance ActiveX Security)

2.3. Package Contents

- **Camera – IP-150CAM / WN-150CAM** Network Camera
- **Quick Installation Guide -** To provide brief product information and quick installation and wireless setting.
- **Software CD –** Free bundled web-based 9 channels IP Surveillance Software, CamPro Express 64 wizard, User Manual and Quick Installation Guide.
- **Ethernet cable** – Assist to setup your IP Camera.
- **Mounting Bracket –** There are three components including lock ring, brace, and base plate to compose a bracket and three applied screws to fix the base plate to a flat surface. (Horizontal or vertical)
- **Adaptor -** 12V DC, max 12W

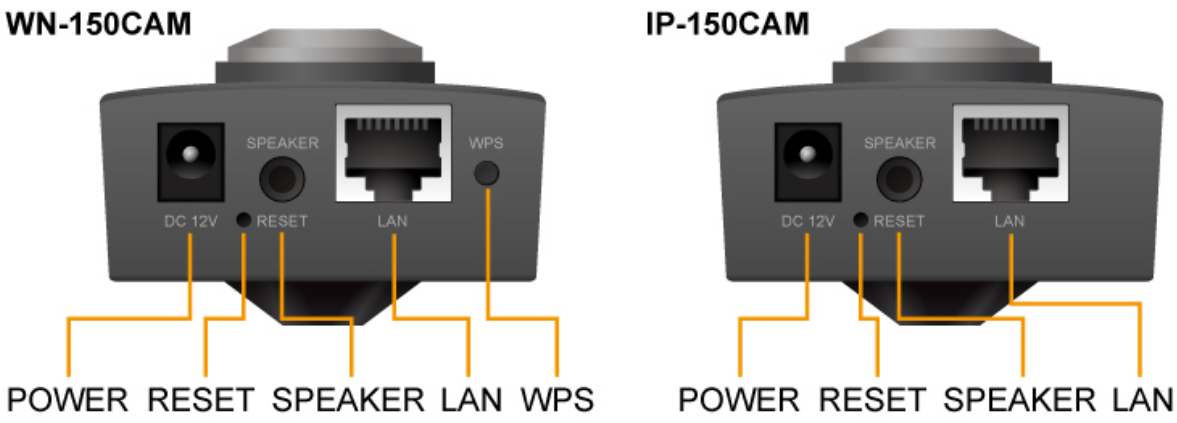
2.4. Physical Description

2.4.1. Front View

- **Focus Adjustment Ring -** Adjust focus manually to achieve the best image quality.
- **Power LED indicator -** Power LED will light up after the IP Camera completed the boot process.
- **Network LED indicator -** Network LED will light up after the IP Camera connected with network.
- **Built-In Microphone -** Built-In Microphone for Two- way Audio.

POWER LED	
Steady Red	Boot up process
Steady Blue	Boot up complete
Steady Blue → Flash Purple	Push WPS button and ready for connecting wireless router/AP
Flash Purple → Steady Blue	WPS configuration finished
Flash Purple → Steady Red 30 secs	WPS configuration failed
Steady Blue → Unlit	Push reset button and then reset
Steady Blue → Unlit → Steady Blue	Push reset button for at least 5 secs and then reset to default
Steady Blue → Flash Purple	Firmware upgrade
ETHERNET/WIRELESS LED	
Flashing blue	Wired packets transmission
Unlit	No transmission

2.4.2. Bottom View



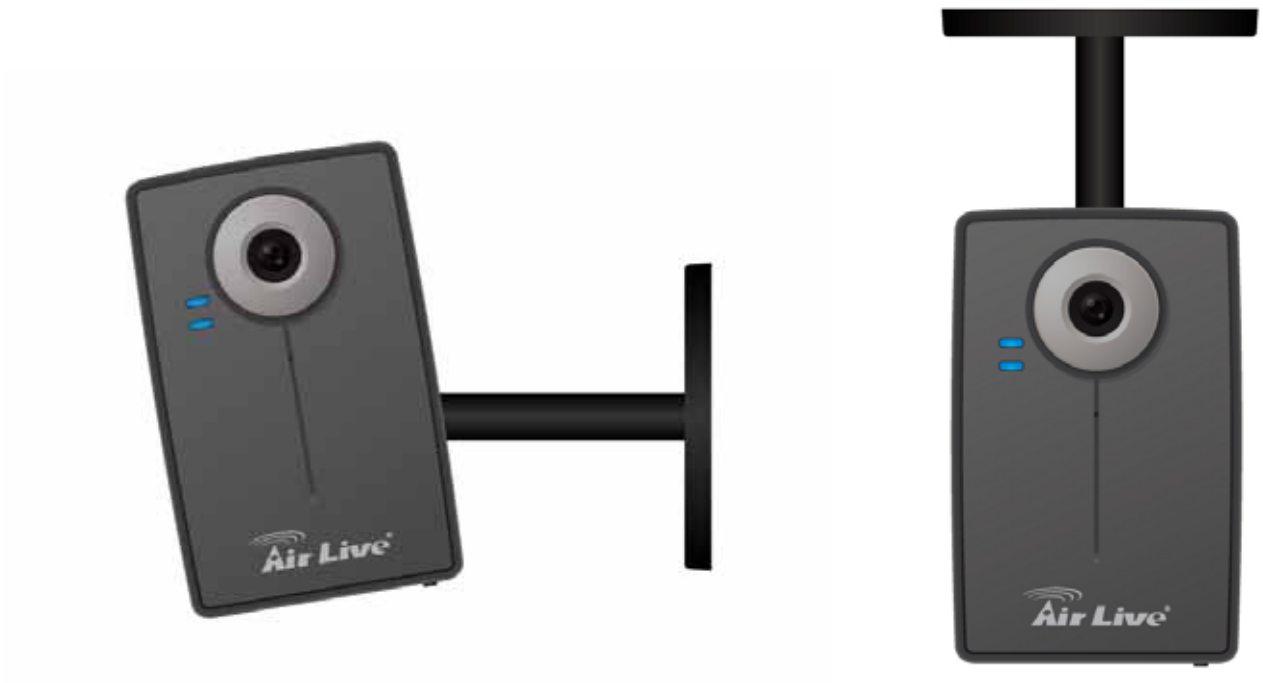
- **Power Connector** - For connection of 12V DC input.
- **Reset** – When the device is empowered, press the Reset Button to reboot the device, or hold the Reset Button for 10 seconds to set the device settings back to factory default.

- **WPS –** Click to easily connect to your router equipped with WPS. (Only WN-150CAM)
- **Audio Out (Speaker)** - To support audio out with earphones or speakers
- **Network Connector** - For connection to the Ethernet via RJ-45 standard.

2.5. Mounting and Cable Connecting

• Wall and Ceiling Mounting

1. Use the 3 supplied screws to fix the base plate to a flat surface.
2. Loosen the lock ring to adjust the desired angle of the camera.
3. Tighten the lock ring.



- **Power and Ethernet Connecting**

1. Use a standard RJ-45 network cable to connect the IP Camera to the Network connection
2. Connect power adaptor to the IP Camera.

3 Easy Access

3.1. Web Browsers

3.1.1. Windows Web Browsers

1. Start your web browser, and enter the IP address or host name of the IP camera in the Location / Address field of your browser.

Note

If you only want to view the video without setting page, enter "http://<IP>/index2.htm" as your web URL.

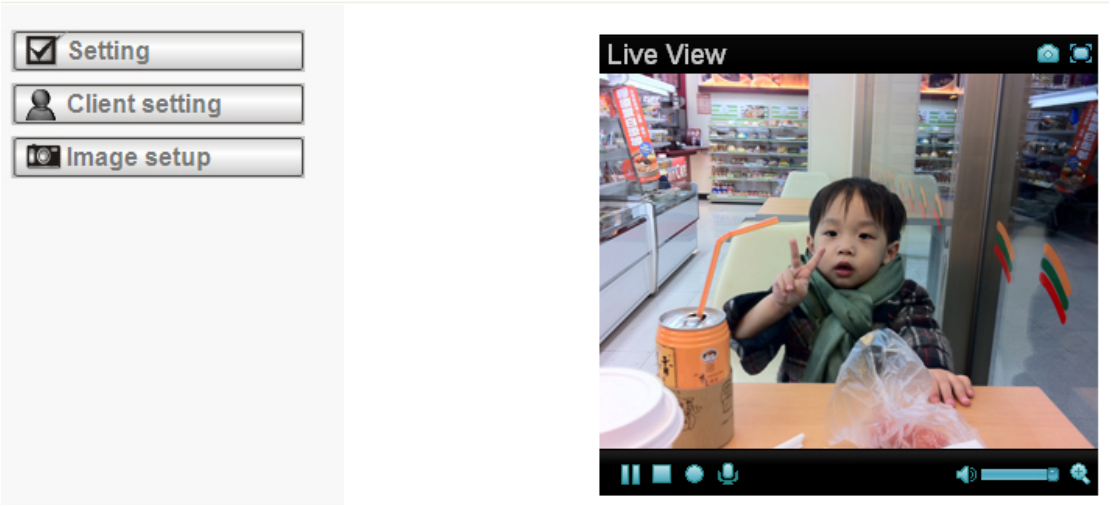
2. Use the default user name "admin" and default password "airlive".

Connect to 192.168.0.109
The server 192.168.0.109 at AirCam WN-150CAM requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name:
Password:
Remember my password
OK
Cancel

Note

The default user name is "admin" and the default password is "airlive."

3. The monitor image will be displayed in your browser. In the far left side of main configuration are Setting, Client Setting, and Image Setup.



3.1.2. Mac Safari

1. Click the Safari icon, and enter the IP address of the IP camera in the Location / Address field of your browser.

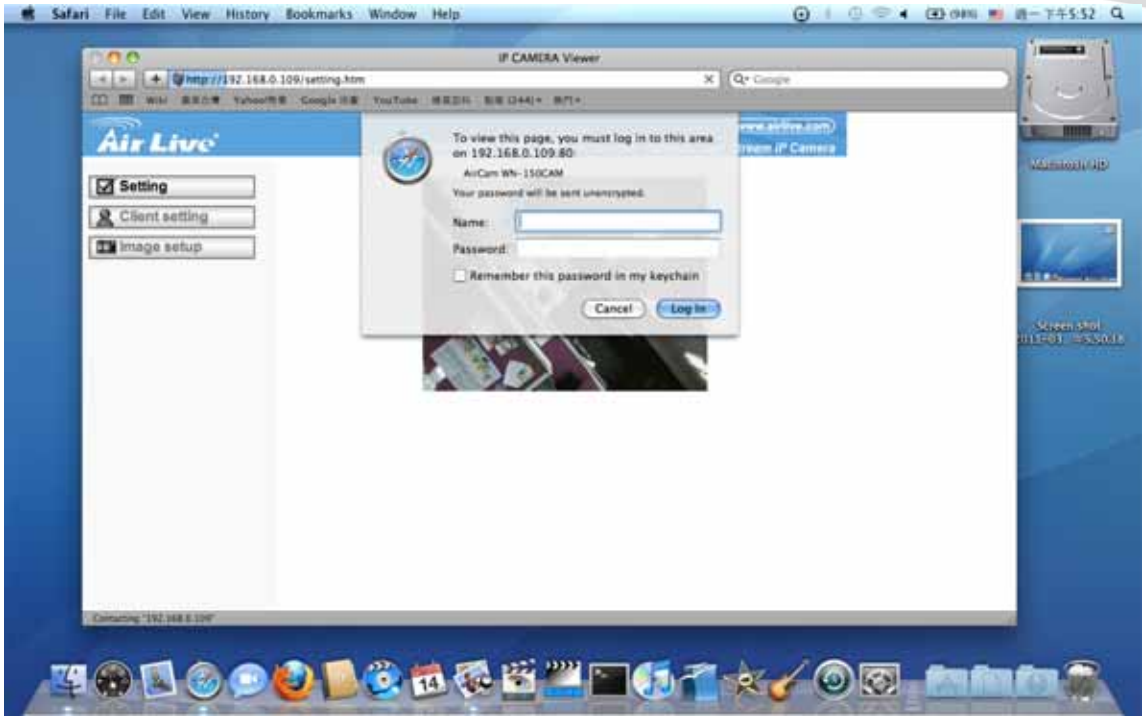
Note

If you only want to view the video without setting page, enter "http://<IP>/index2.htm" as your web URL.

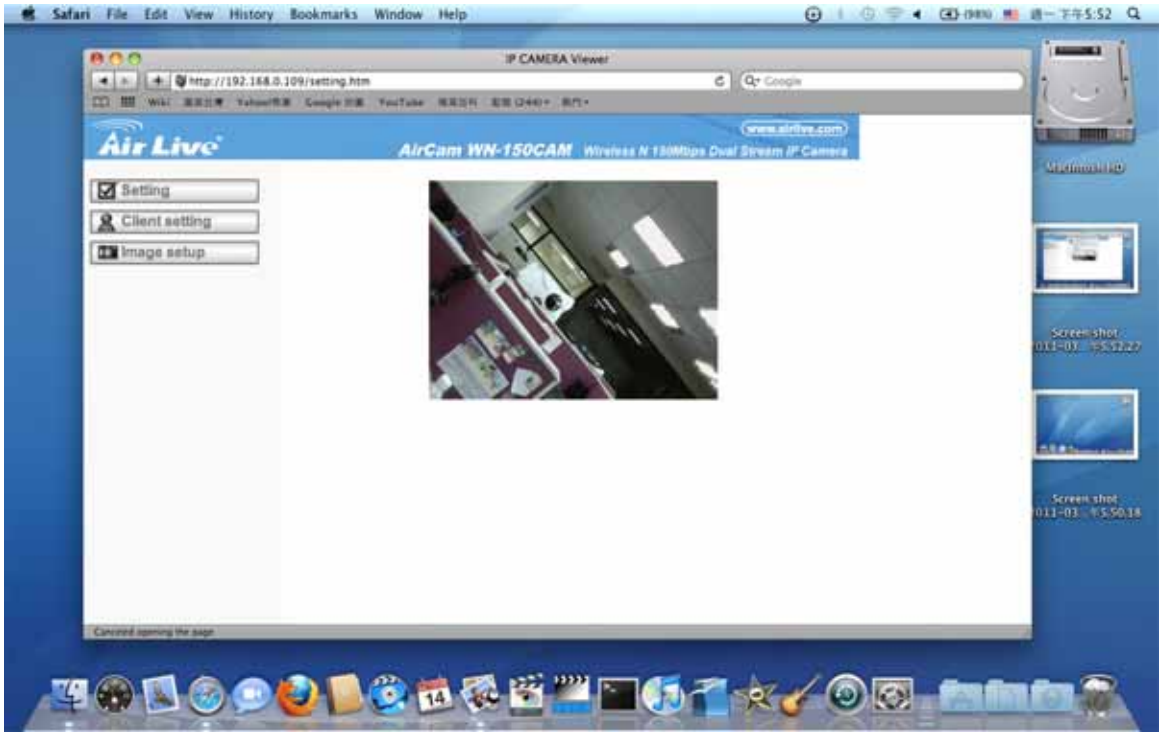
2. Use the default login name “admin” and default password “airlive”.

Note

The default user name “admin” and the password are set at the factory for the administrator



4. The monitor image will be displayed in your browser. In the far left side of main configuration are Setting, Client Setting, and Image Setup.

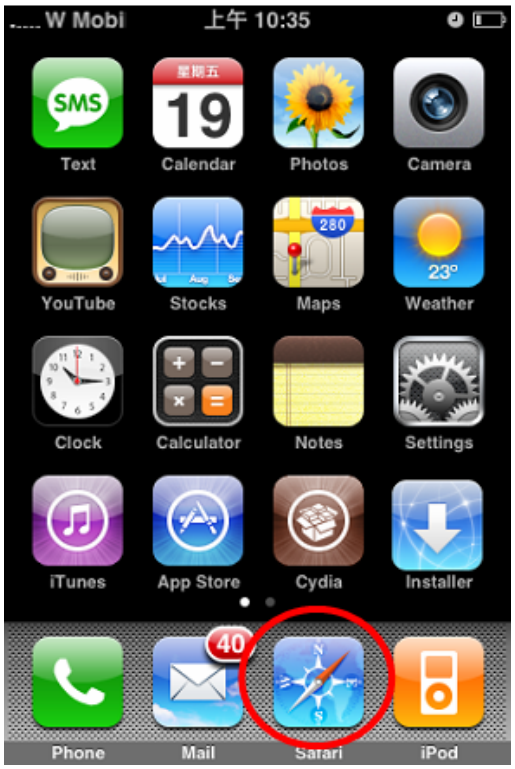


3.2. Mobile Phone Viewing

3.2.1. Using IP Camera via iPhone

You can use AirLive Web User Interface via iPhone. Please follow the setting process below. Then, you can use AirLive web UI via iPhone.

a. Select Safari function



b. Type IP address in your web link.

c. Type name and password. Default value is admin / airlive, then click login.

d. The AirLive User Interface and live image will show up in the middle of screen.

3.2.2. 3G Mobile Phone Streaming

For 3G mobile phone viewing, type “rtsp://<IP>:<PORT>/video.3gp” into your 3G Streaming Link. **<IP>** is the Public IP address of your IP camera; **<PORT>** is the RTSP port of your IP camera (Default value is 554.) Example: rtsp://100.10.10.1:554/video.3gp

Note

You can also use RTSP clients (RealPlayer, VLC, QuickTime Player…etc.) to view RTSP streaming, just type in “rtsp://<IP>:<PORT>/video.3gp” as the Player URL

3.2.3. 2.5G Mobile Phone WAP

For 2.5G mobile phone viewing, type “http://<IP>/mobile.wml ” into your 2.5G WAP Browser. **<IP>** is the Public IP address of your IP camera.

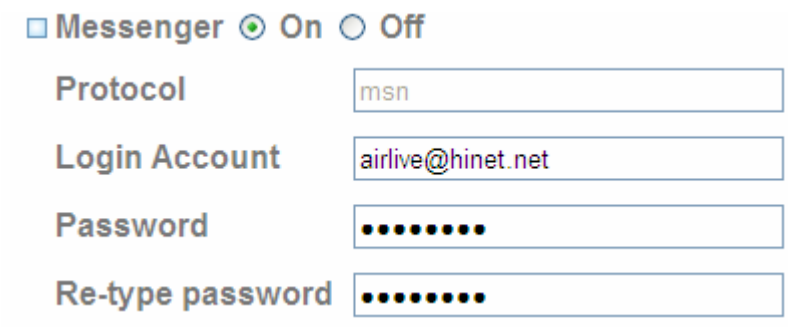
3.2.4. 2.5G Mobile Phone Browser

For 2.5G mobile phone viewing, type "http://<IP>/mobile.wml " into your 2.5G WAP Browser. **<IP>** is the Public IP address of your IP camera.

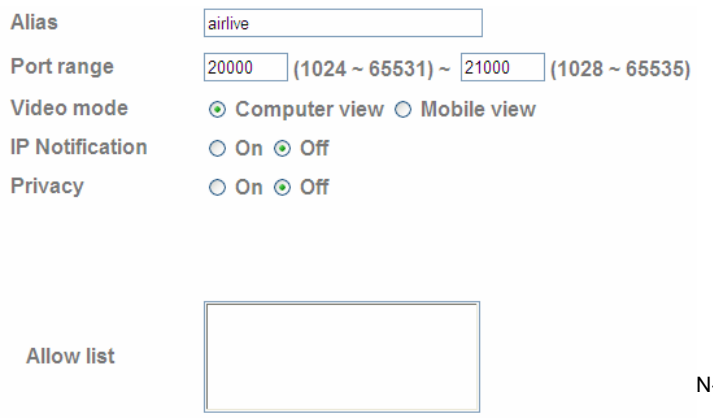
3.3. Windows Live Messenger

1. Apply for a new MSN account for your Device

2. Type login account and password

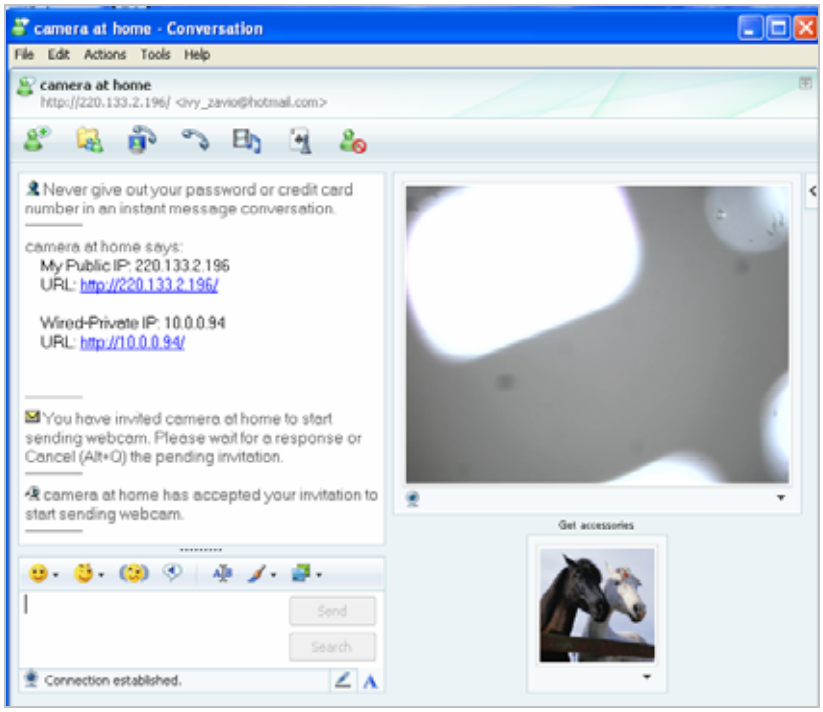


3. Set the following settings

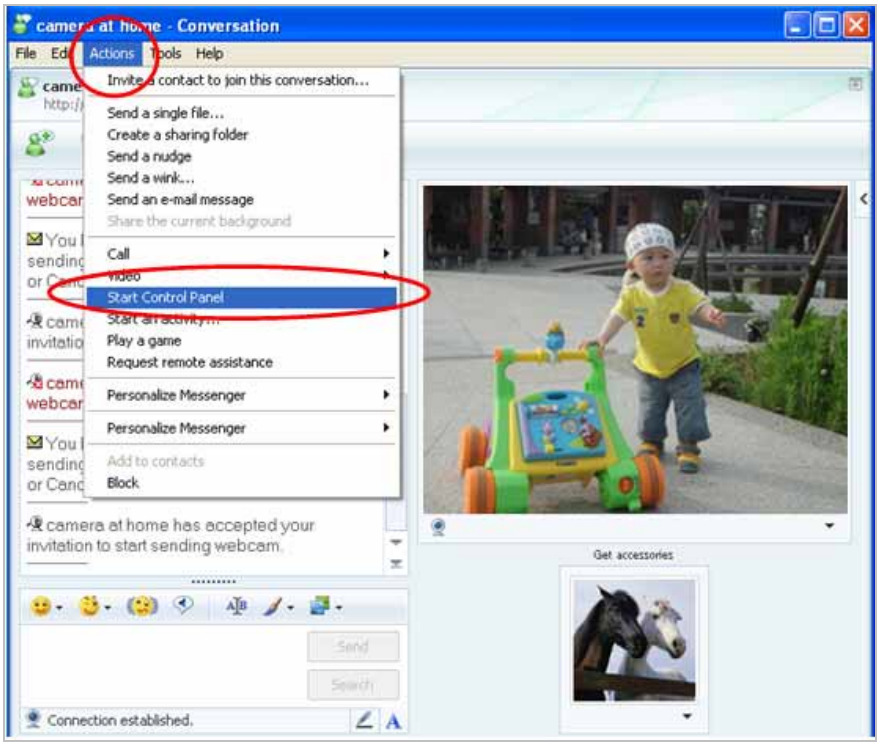


4. You will get IP information automatically

5. Click to live viewing by Windows Live Messenger


camera at home - Conversation
File Edit Actions Tools Help
camera at home
Never give out your password or credit card number in an instant message conversation.
camera at home says:
My Public IP: 220.133.2.196
URL: http://220.133.2.196/
Wired-Private IP: 10.0.0.94
URL: http://10.0.0.94/
You have invited camera at home to start sending webcam. Please wait for a response or Cancel (Alt+C) the pending invitation.
camera at home has accepted your invitation to start sending webcam.
Get accessories
Send
Search
Connection established.

6. Click Action button and choose Start control panel



7. Click icons to snapshot or optimize image

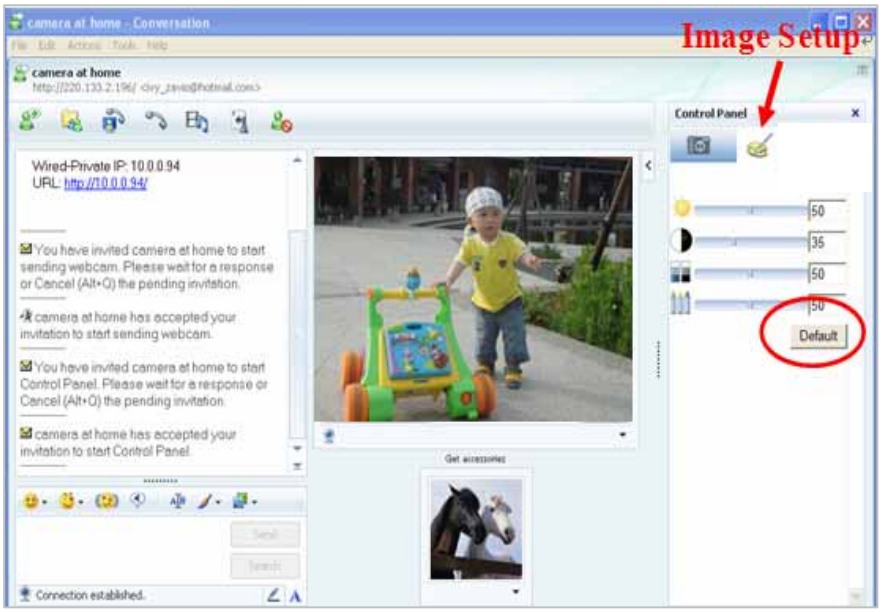
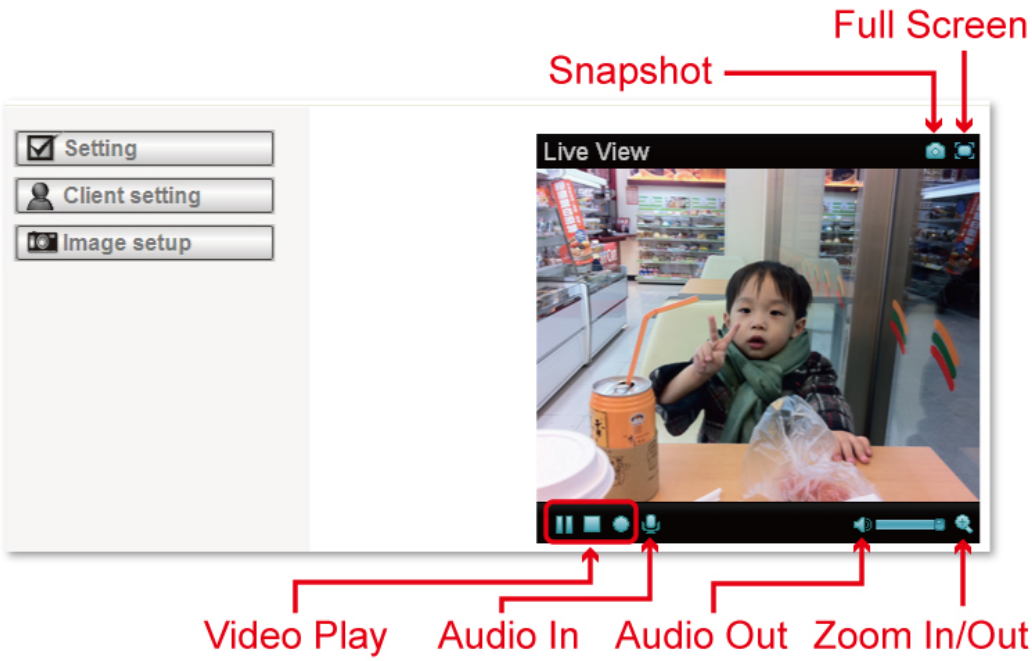


Image Setup
camera at home - Conversation
camera at home
Wired-Private IP: 10.0.0.94
URL: http://10.0.0.94/
You have invited camera at home to start sending webcam. Please wait for a response or Cancel (Alt+C) the pending invitation.
camera at home has accepted your invitation to start sending webcam.
You have invited camera at home to start Control Panel. Please wait for a response or Cancel (Alt+C) the pending invitation.
camera at home has accepted your invitation to start Control Panel.
Control Panel
50
35
50
50
Default
Get accessories
Connection established.

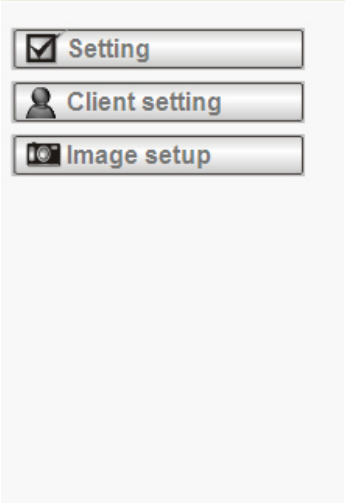
4 Live View

4.1. Live View Control Panel



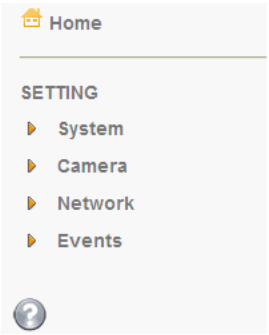
4.2. Setting

This function is only for the Administrator. Click this button to get into the setting page.

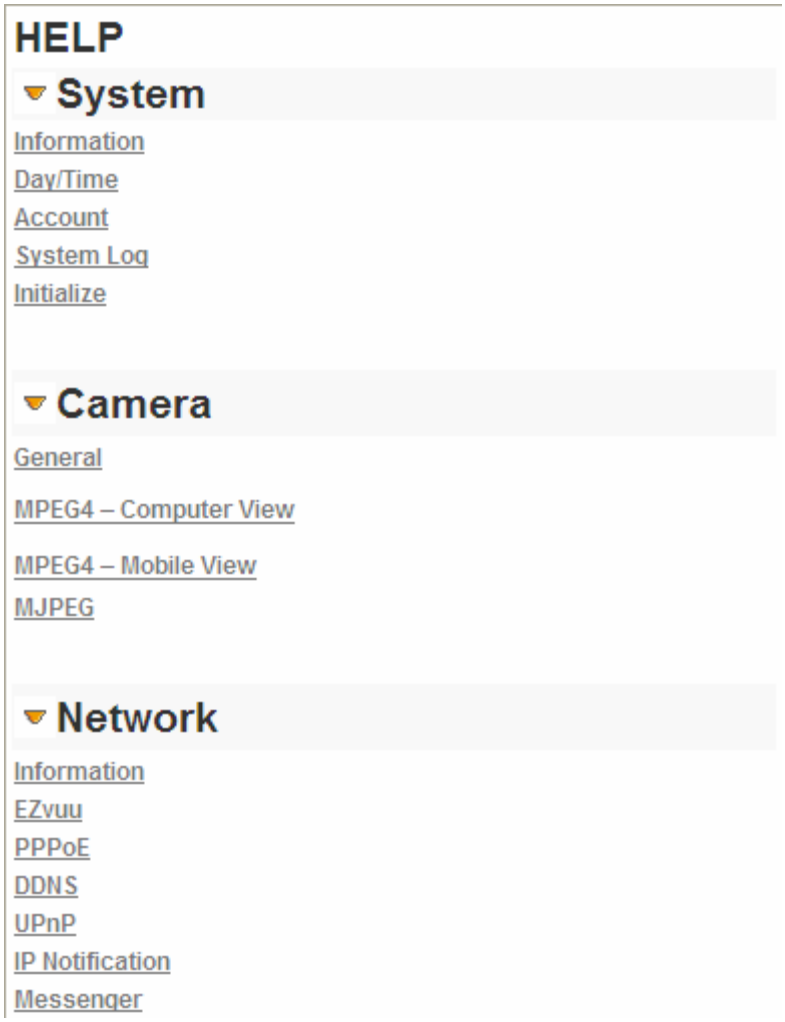


There are four sub-folders including System, Camera, Network, and Events and a Question mark inside.

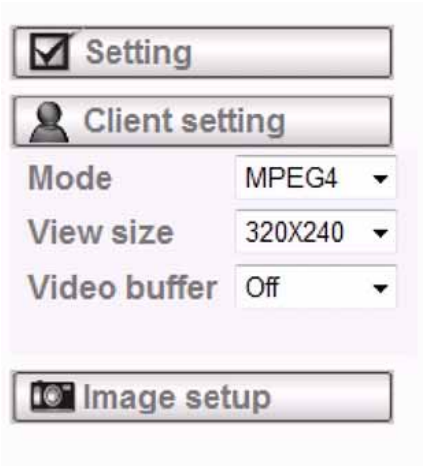
Click question mark will pop-up a new window and you can get answers online without user manual.



HELP is an online help and support. It provides solutions immediately.



4.3. Client Setting



This function is only for the administrator and client.

- **Mode**

Click the pull-down box to choose between MPEG-4 MJPEG, and JPEG video compression mode. MJPEG streaming is unavailable if RTSP mode is “On.”

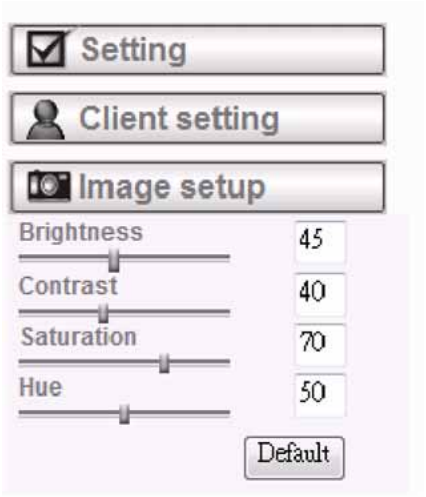
- **Video Size**

Select the desired display image resolution to 640X480 or 320X240.

- **Video Buffer**

Turn the Video Buffer function ON / OFF. The Video Buffer function makes the streaming more smoothly in unsteady network environment, but might cause a little delay in live viewing.

4.4. Image Setup



- **Brightness**

The higher value the brightness is, the brighter the image is.

- **Contrast**

The contrast is a measure of a display system, defined as the ratio of white to black that the system is capable of producing. The higher value the contrast is, the more delicate of color you can have.

- **Saturation**

The saturation of a color is determined by a combination of light intensity and how much it is distributed across the spectrum of different wavelengths. The higher value the saturation is, the more colorful the image will be.

- **Hue**

Hue is one of the three main attributes of perceived color, affected by different wavelength of color. With higher value of hue, color will be much more vivid.

- **Default**

After the adjustment of all setting, you can still click Default to make the setting back to the original setting.

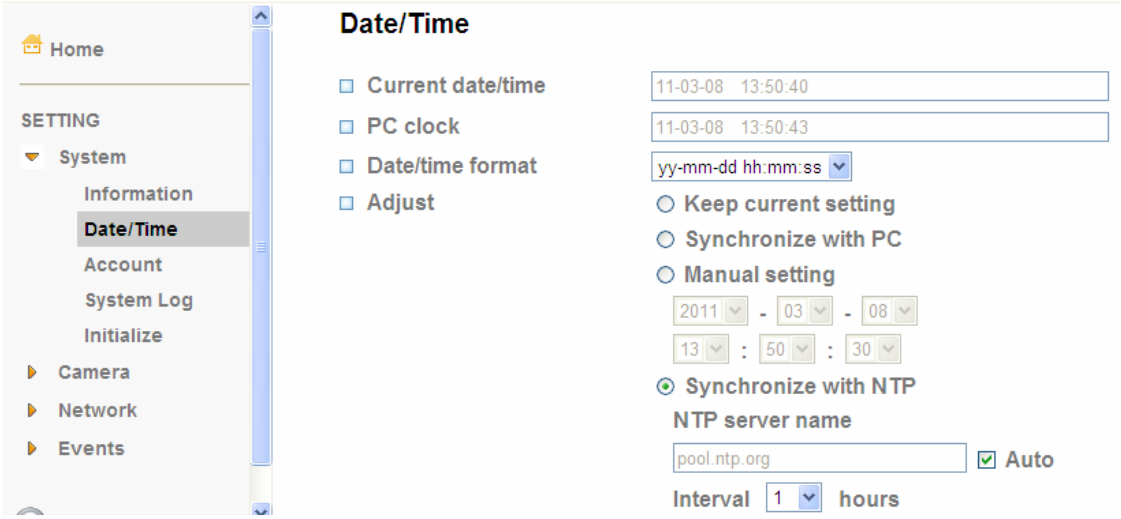
5 Setting

5.1. System

5.1.1. Information

The Information page provides the product factory information which includes **Product Name, Firmware Version and Web Version**.

5.1.2. Date/Time



- **Current date / time**

Display the current date and time of this IP Camera.

- **PC clock**

Display the date and time of the monitoring PC clock.

- **Date / Time format**

Pull down box to select different time display formats.

- **Adjust**

  - Keep current setting

    Keep the current date and time of this IP Camera.

  - Synchronize with PC

    Keep the date and time the same PC.

  - Manual setting

    Adjust manually the date and time of this IP Camera.

  - Synchronize with NTP

    Specify the NTP server name and the Refresh Interval to synchronize.

- **Time Zone**

You can select the Time Zone.

- **Daylight Saving Time**

There are two modes to choose for setting up daylight saving time.

  - By Date

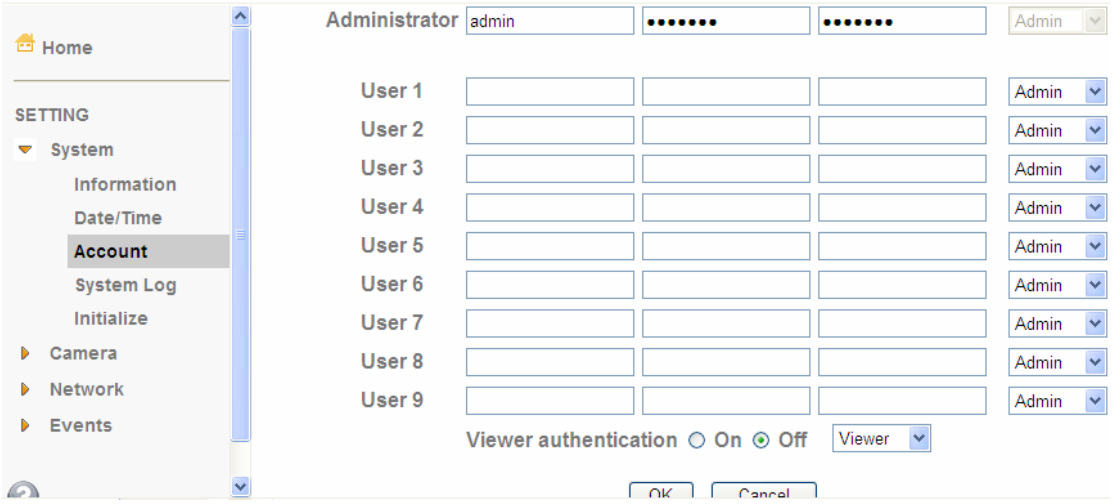
    Set the start and end time by select month, day, hour, and minute.

  - By Week Number

    Set the start and end time by select month, week, hour, and minute.

5.1.3. Account

The device fault account and password setting is “admin / admin”. That means everyone who knows IP address can access the device including all configuration. It is necessary to assign a password if the device is intended to be accessed by others.



- **User name**

Set a user name between 4-16 characters.

- **Password**

Set a password between 4-16 characters.

- **Re-type Password**

Re-type the password to confirm.

- **Viewer Mode**

Set the user mode among Admin, Operator, and Viewer. Different viewer mode has different limits of authority.

- Admin mode

  Has all authority of configuration.

- Operator mode

  View the Live View and Use Control Panel.

- Viewer mode

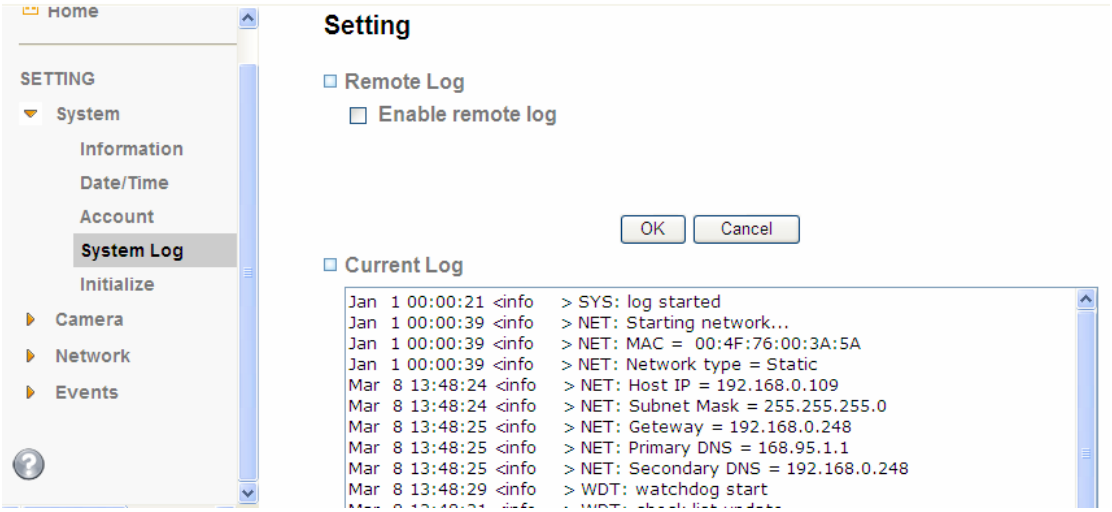
  View the Live View only.

- **Viewer Authentication**

Allows any viewer direct access to Live View.

5.1.4. System Log

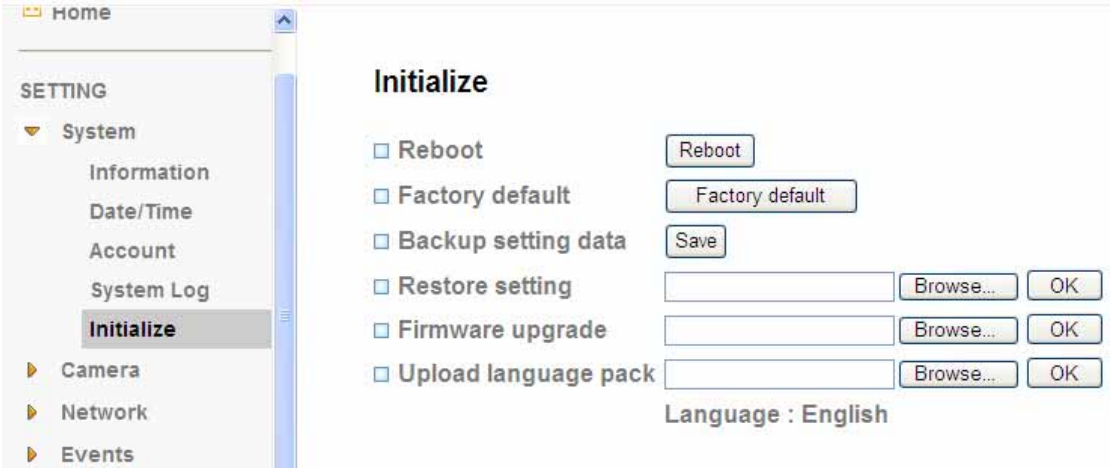
The System Log function allows users to review any changes and events happened. The system starts logging automatically after started.



- **Enable remote log**

Enables user to send the log data to a specified log server.

5.1.5. Initialize



- **Reboot**

Reboot this IP Camera and it takes two minutes to reboot this IP Camera.

- **Factory Default**

Reset this IP Camera to the factory default setting. Don't turn off this IP Camera until the device reboots.

- **Backup Setting**

Backup the setting data of this IP Camera.

- **Restore Setting**

Click “Browse” to restore setting and then restart automatically.

- **Firmware Update**

Click “Browse” to upgrade firmware.

- **Upload Language Pack**

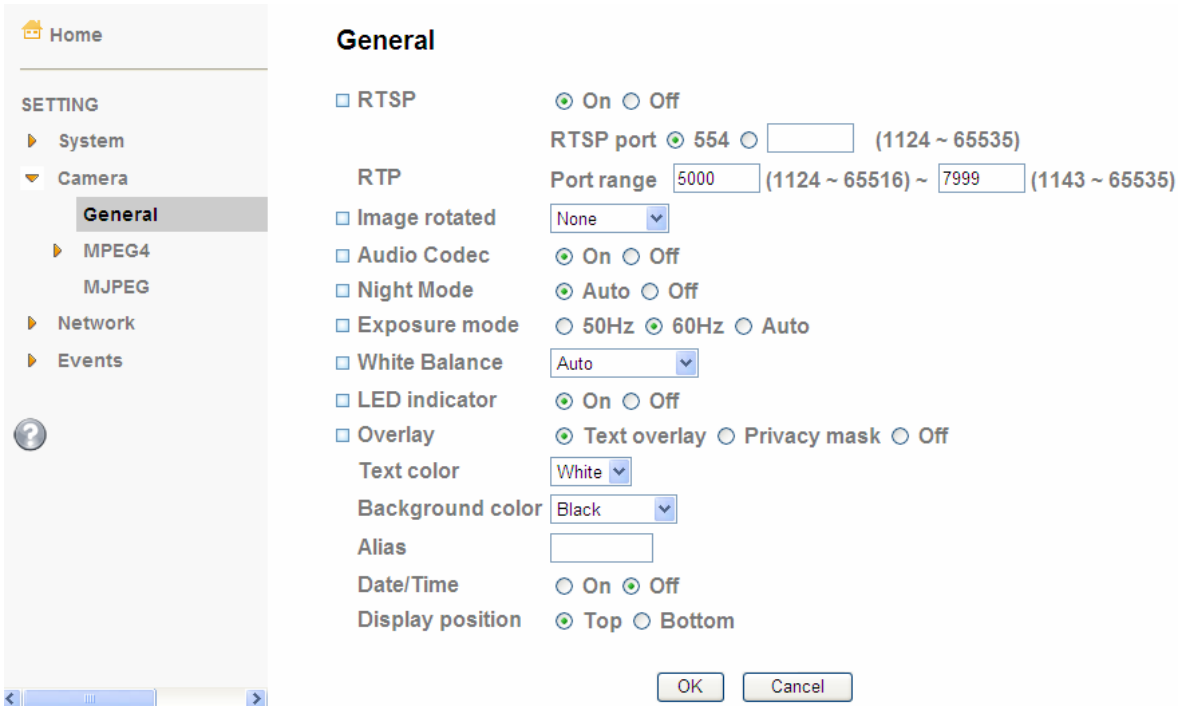
Upgrade the device language pack.

Note

Use only upgrade files that are special for this IP Camera. Otherwise problems may occur. Don't turn off the IP Camera power or disconnect the network until the upgrading is completed.

5.2. Camera

5.2.1. General



- **RTSP**

Switch RTSP “On” or “Off.” The default value is 554.

- **Image Rotate**

You can mirror or flip the display screen.

- **Audio Codec**

If this option is selected **On,** the microphone will start sound reception.

- **Night Mode**

You can choose Auto / Off. If **you choose Auto option**, the camera will adjust automatically to perform well when the environment is dark.

- **Exposure Mode**

You can choose the environment among 50 Hz, 60 Hz, and Outdoor.

- **White Balance**

You can choose the white balance to Auto, Florescent, Incandescent and Black & White.

- **LED Indicator**

Turn on/off the LED indicator.

- **Overlay**
  - Text Overlay

    You can see some information on the display screen which includes Date / Time and user-defined text. Also, you can change the background color.
  - Privacy Mask

    You can cover a specific area of the video image.

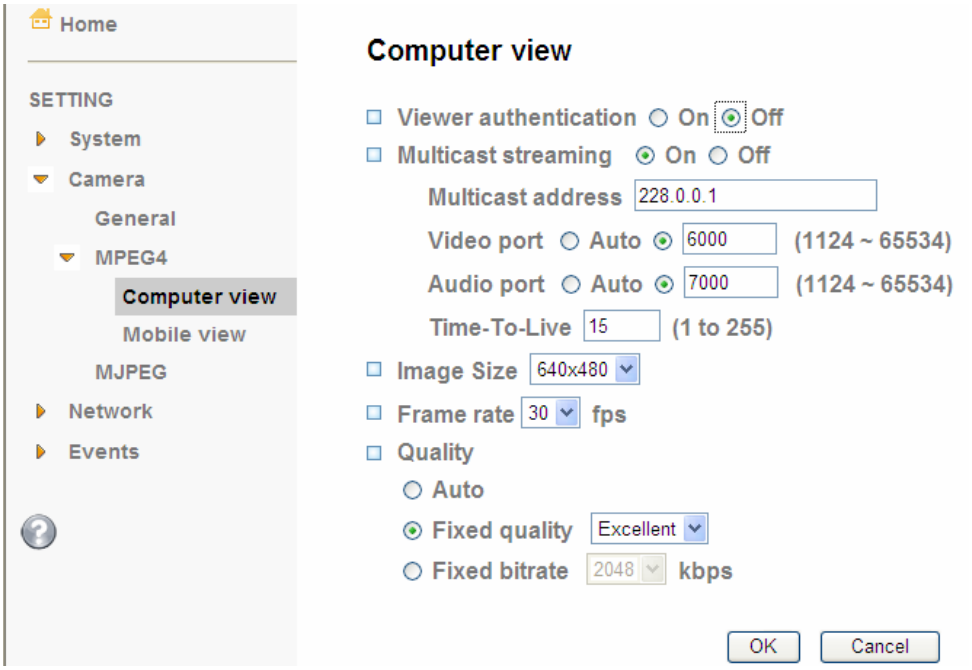
Note

RTSP (Real Time Streaming Protocol) is a protocol for use in streaming media system which allows clients to remotely control a streaming video server. RTSP is supports by most of the media clients such as Real Player, QuickTime and VLC...etc.

5.2.2. MPEG4

5.2.2.1. Computer View

If **RTSP** is **ON**, the option of Viewer Authentication & Multicast Streaming will appear.



- **Viewer Authentication**

If the viewer authentication is On, the users will be requested to key-in username and password when viewing through RTSP.

- **Multicast Streaming (If it's on)**
  - Multicast Address

    Specify the multicast server address.
  - Video / Audio Port

    Specify the transmission port number of the video data.
  - Time to Live

    Set the maximum TTL that multicast can pass through.
- **Image Size**

Specify the image size when the network camera transmits.

- **Frame Rate**

Set the frame rate of the MPEG4 image.

- **Quality**
  - Auto

    The quality and bitrate will be adjusted automatically according to the frame rate.
  - Fixed Quality

    You can select the value of quality.
  - Fixed Bitrate

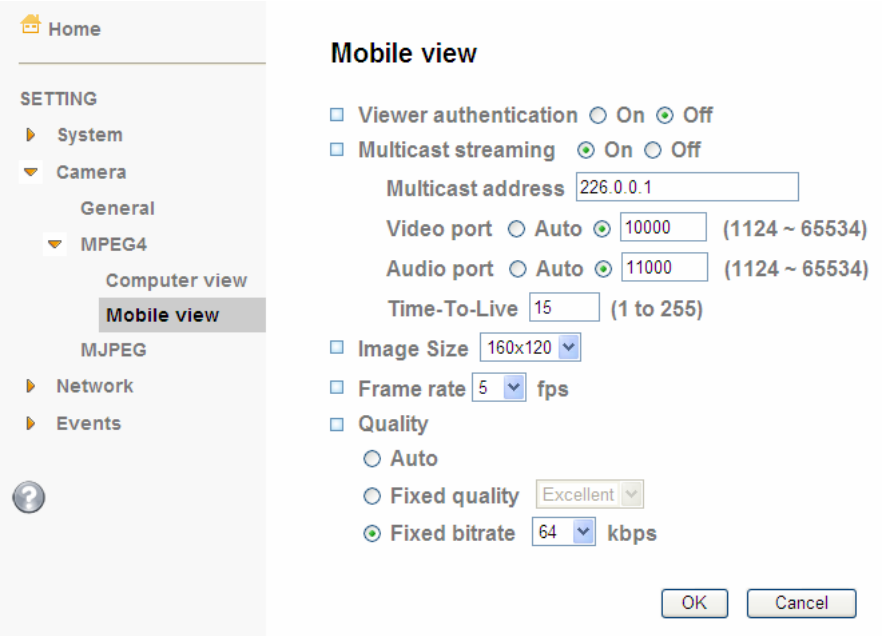
    Set the bitrate of MPEG4 image transmission for a line.

Note

Concerning how to select the suitable image quality for Fixed Quality or Fixed Bitrate, please refer to APPENDIX / A. Frame- rate & Bitrate Table.

5.2.2.2. Mobile View

If **RTSP** is **ON**, the option of Viewer Authentication & Multicast Streaming will appear.



- **Viewer Authentication**

If the viewer authentication is On, the users will be requested to key-in username and password when viewing through RTSP.

- **Multicast Streaming (If it's on)**
  - Multicast Address

    Specify the multicast server address.
  - Video / Audio Port

    Specify the transmission port number of the video data.
  - Time to Live

    Set the maximum TTL that multicast can pass through.
- **Image Size**

Specify the image size when the network camera transmits

- **Frame Rate**

Set the frame rate of the MPEG4 image.

- **Quality**
  - Auto

    The quality and bitrate will be adjusted automatically according to the frame rate.
  - Fixed Quality

    You can select the value of quality.
  - Fixed Bitrate

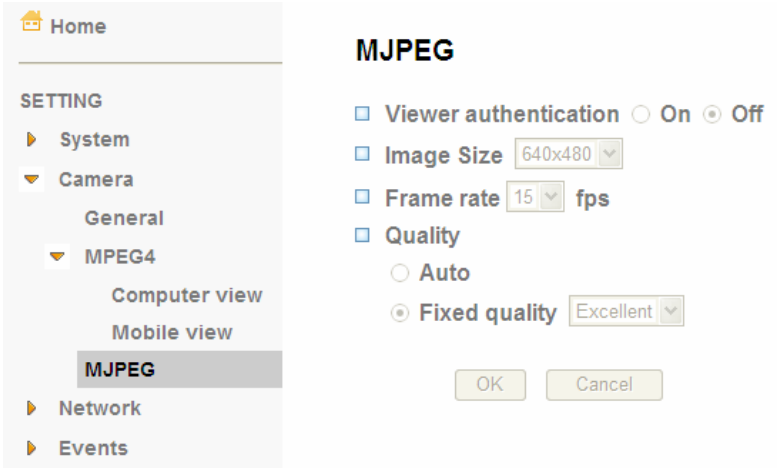
    Set the bitrate of MPEG4 image transmission for a line.

Note

Concerning how to select the suitable image quality for Fixed Quality or Fixed Bitrate, please refer to APPENDIX / A. Frame-rate & Bitrate Table.

5.2.3. MJPEG

If **RTSP** is **OFF**, the option of Image Size & Frame Rate & Quality will appear.



- **Image Size**

Specify the image size when the network camera transmits

- **Frame Rate**

Set the frame rate of the MJPEG image.

- **Quality**

  - Auto

    The quality and bitrate will be adjusted automatically according to the frame rate.

  - Fixed Quality

    You can select the value of quality.

  - Fixed Bitrate

    Set the bitrate of MPEG4 image transmission for a line.

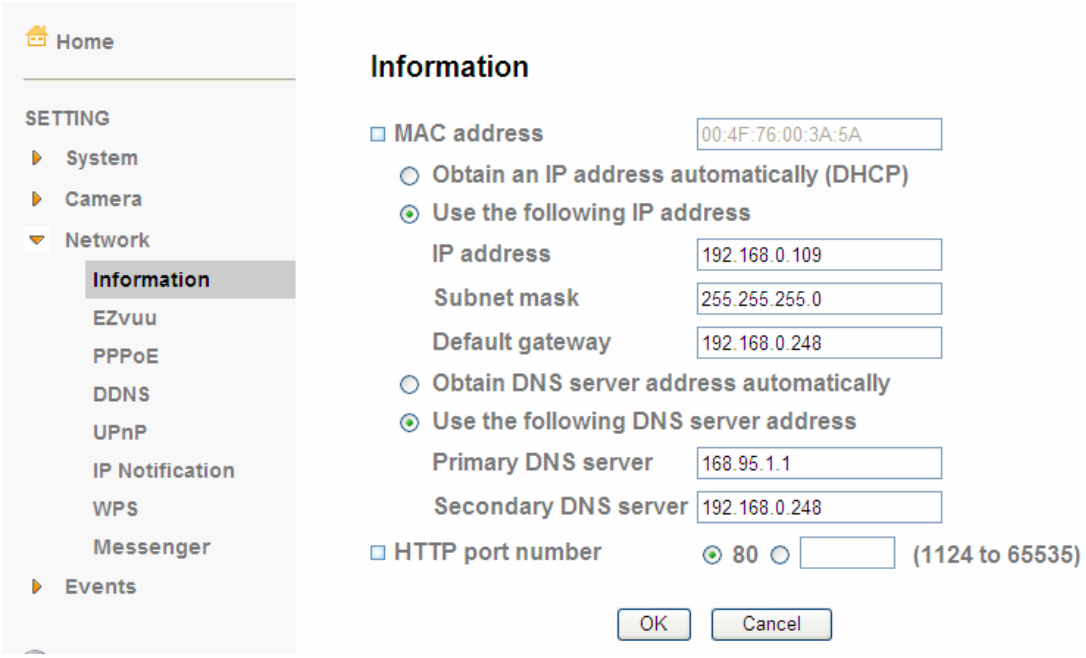
Note

Concerning how to select the suitable image quality for Fixed Quality or Fixed Bitrate, please refer to APPENDIX / A. Frame-rate & Bitrate Table.

5.3. Network

5.3.1. Information

Display the MAC address of the device.



- **Obtain an IP address automatically (DHCP)**

Select this while the IP address is assigned by the DHCP server.

- **Obtain DNS server address automatically**

Select this to obtain the address of DNS server automatically.

- **Use the following IP address**

Select this when the fixed IP address is set.

- IP address

  Enter the IP address of the device.

- Subnet mask

  Enter the subnet mask.

- Default gateway

  Enter the default gateway.

- **Use the following DNS server address**

Select this when you set the fixed address as the IP address of DNS server.

- Primary DNS server

  Enter the IP address of the primary DNS server.

- Secondary DNS server

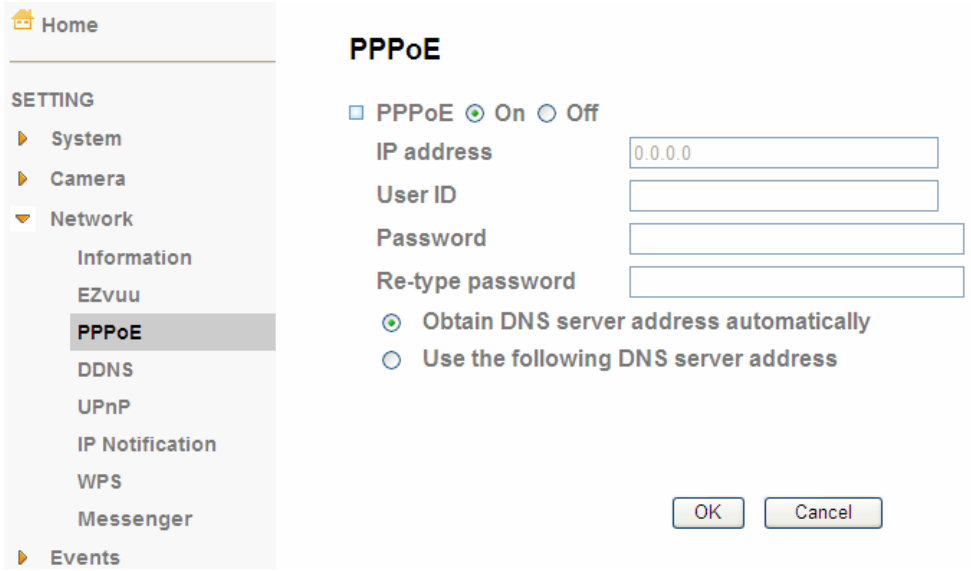
  Enter the IP address of the secondary DNS server, if necessary.

- **HTTP port number**

Select 80 (recommend) or enter a port number between 1024 and 65535.

5.3.2. PPPoE

If your ISP provides Dynamic IP with authentication by username and password, type all PPPoE information in this part. When you use the PPPoE function, you need to turn on the DDNS or IP Notification function at same time.



Note

1. The IP Camera needs to be rebooted after it finishes changing the network completely.
2. The IP Camera with Intelligent IP Installer can't be founded after turning on the PPPoE and reboot.

- **IP Address**

The IP address obtained at the PPPoE connecting with network.

- **User ID**

Enter the user ID for authentication necessary for PPPoE connections.

- **Password**

Enter the password for authentication necessary for PPPoE connections.

- **Re-type Password**

Re-type the password to confirm.

- **Obtain DNS server address automatically**

Select this to obtain the address of DNS server automatically.

- **Use the following DNS server address**

Select this when you set the fixed address as the IP address of DNS server.

- Primary DNS server

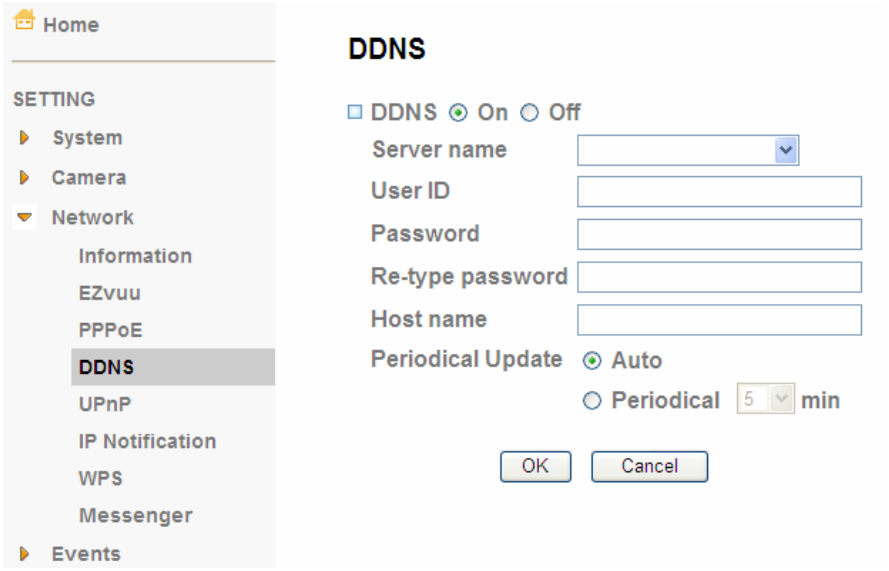
  Enter the IP address of the primary DNS server.

- Secondary DNS server

  Enter the IP address of the secondary DNS server.

5.3.3. DDNS

DDNS is a system which allows the domain name data held in a name server to be updated in real time. The most common use for DDNS is allowing an internet domain name to be assigned to a computer with a varying / dynamic IP Address. This makes it possible for other sites on the internet to establish connection to the machine without needing to track the IP Address themselves.



- **Server name**

Choose the DDNS Server from the list.

- **User ID**

Enter the user ID for authentication necessary for DDNS connections. Type it up to 64 characters.

- **Password**

Enter the password for authentication necessary for DDNS connections. Type it up to 32 characters.

- **Re-type password**

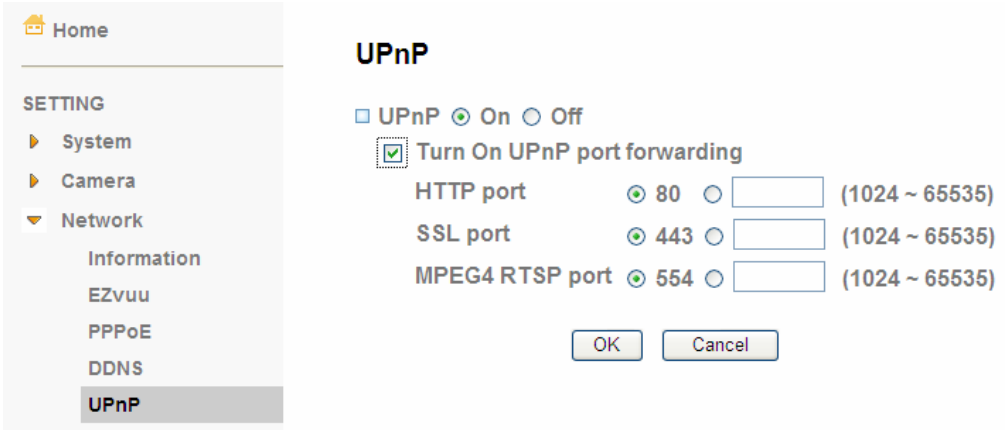
Re-type the password to confirm.

- **Host name**

Enter the host name that is registered to the DDNS server.

5.3.4. UpnP

You can select UPnP function “On” or “Off”. If a ROUTER is used to access to internet and it supports UPnP IGD function, please turn on the UPnP Port Forwarding function.



- **HTTP port**

The default HTTP port is 80. Or the port number can be entered, ranged from 1024 to 65535.

- **SSL port**

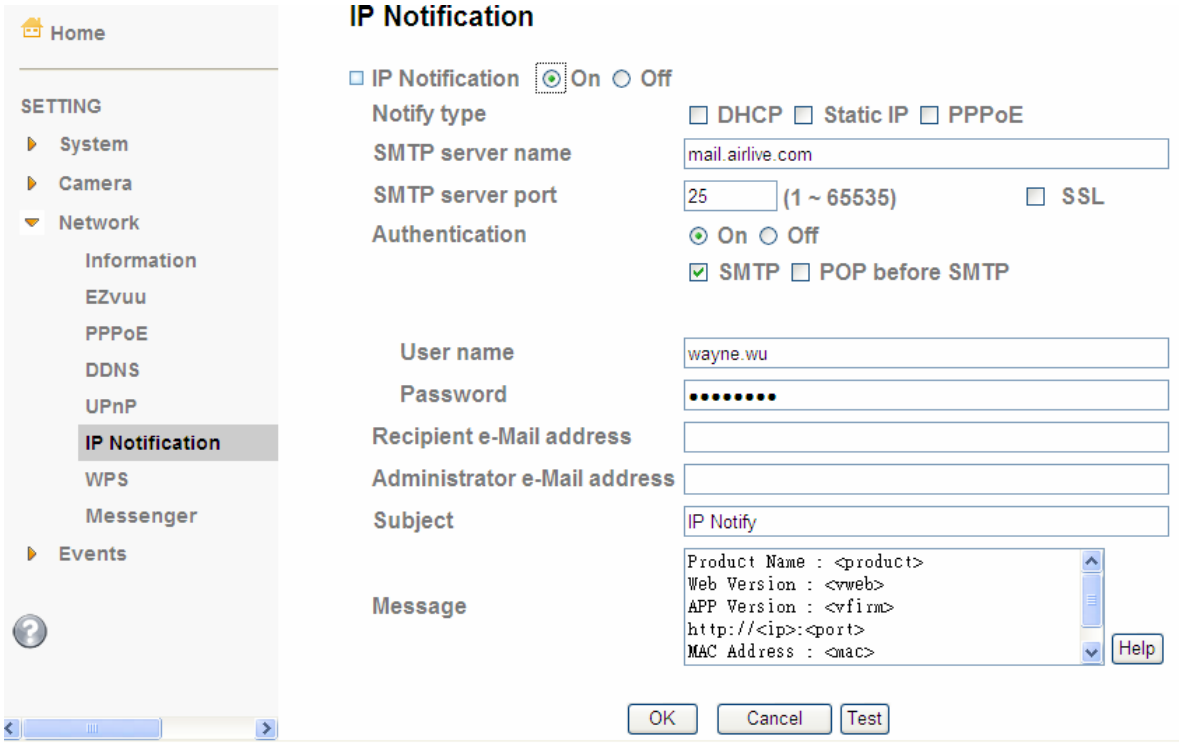
The default SSL port is 443. Or the port number can be entered, ranged from 1024 to 65535.

- **MPEG4 RTSP port**

The default MPEG-4 RTSP Port is 554. Or the port number can be entered, ranged from 1024 to 65535.

5.3.5. IP Notification

When network notify type is set to “ON”, you can send an e-mail notification of the completion of the network setting.



- **Notify Type**

Select the notify type

- **SMTP Server Name**

Type the SMTP server name or the IP address

- **SMTP Server Port**

Set port number of your mail server. The default value is 25. Tick SSL box if the mail server you use has security restriction.

- **Authentication**

Required when you send an email.

- **SMTP**

Select if SMTP authentication is necessary when an e-mail is sent.

- **POP before SMTP**

Select if POP before SMTP authentication is necessary when an e-mail is sent.

- POP server name

  Type the POP server name of the user.

- User name, Password

  Type the user name and Password of the user.

- **Recipient e-mail address**

Type up to 3 recipient e-Mail addresses.

- **Administrator e-mail address**

This address is used for reply mail and sending system messages from the SMTP server.

- **Subject**

Type the subject/title of the e-Mail.

- **Message**

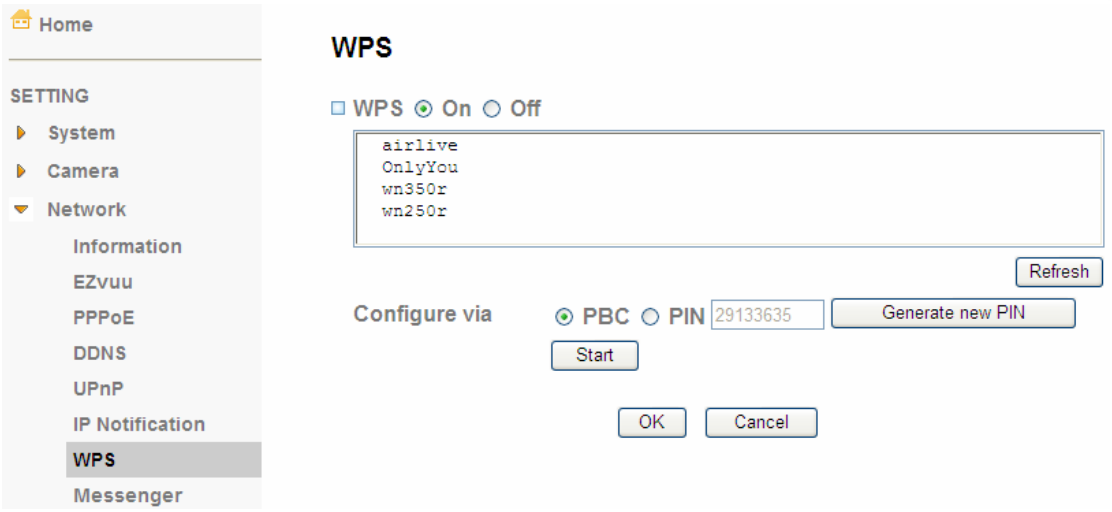
Type the text of the E-mail. Default provides network information including IP, Port, MAC, Model, Firmware Version and Web Version.

Note

If you use g-mail as your mail server, you should set 587 as your port number and tick SSL box.

5.3.6. WPS

WPS (Wi-Fi Protected Setup) also known as a standard for easy and secure establishment of a wireless home network.



- **WPS**

Enable/disable the WPS function.

- **Configure via Push button**

Click “Start.”

- **Configure via Pin code**

Password for this msn account.

5.3.7. Wireless

The wireless network has to be set up by using cable network connection. After setting the camera correctly, the wireless function can work without cable network connection. Please follow the setting process below step by step:

1. See the wireless setting page. Then click “Refresh”. All access points (AP) around you will show up.
2. Select the AP you wish to connect.
3. Enter password at active transmit key if you need. If you don't know the setting of the wireless AP, please ask your network administrator.
4. Choose the option of Obtain an IP address automatically (DHCP).
5. Choose the option of Obtain DNS server address automatically.

- **Use the following IP address**

Select this when the fixed IP address is set.

- IP address: Enter the IP address of the device.
- Subnet mask: Enter the subnet mask.
- Default gateway: Enter the default gateway.

- **Use the following DNS server address**

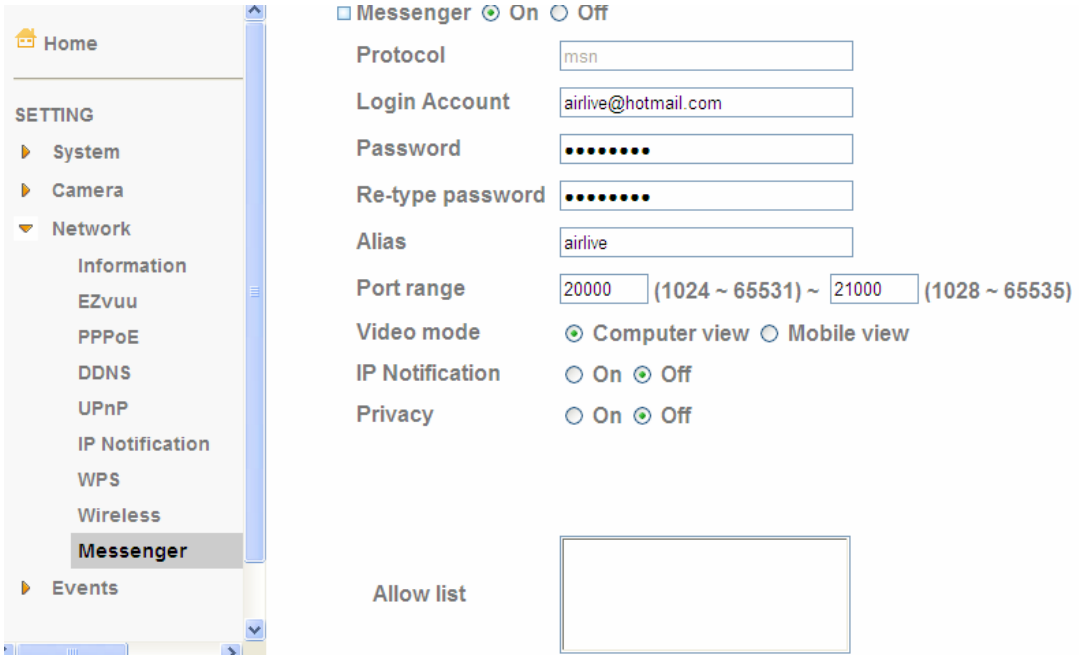
Select this when you set the fixed address as the IP address of DNS server.

- Primary DNS server: Enter the IP address of the primary DNS server.
- Secondary DNS server: Enter the IP address of the secondary DNS server, if necessary.

6. Connect to the IP camera with wireless IP address, and then you can remove the Ethernet connection.

5.3.8. Messenger

If Messenger option is selected On, you can set out the setting of MSN account. Messenger function provide an easy-connect feature. User can easy to know what camera's private and public IP address is.



- **Protocol**

Support MSN only.

- **Login Account**

Camera will use this account to login MSN server.

- **Password**

Password for this msn account.

- **Re-type password**

Re-type password to double confirm.

- **Alias**

This alias will display on MSN nickname.

- **Port range**

Select one port range for video transmission.

- **IP Notification**

Switch the IP notification On / Off. If this feature switches On, camera will send IP notification to the users who are allowed.

- **Privacy**

Switch privacy On / Off. When privacy turns on, only those users in allowed list can access the camera.

- **User**

Input to this blank to edit allow list.

- **Allow list**

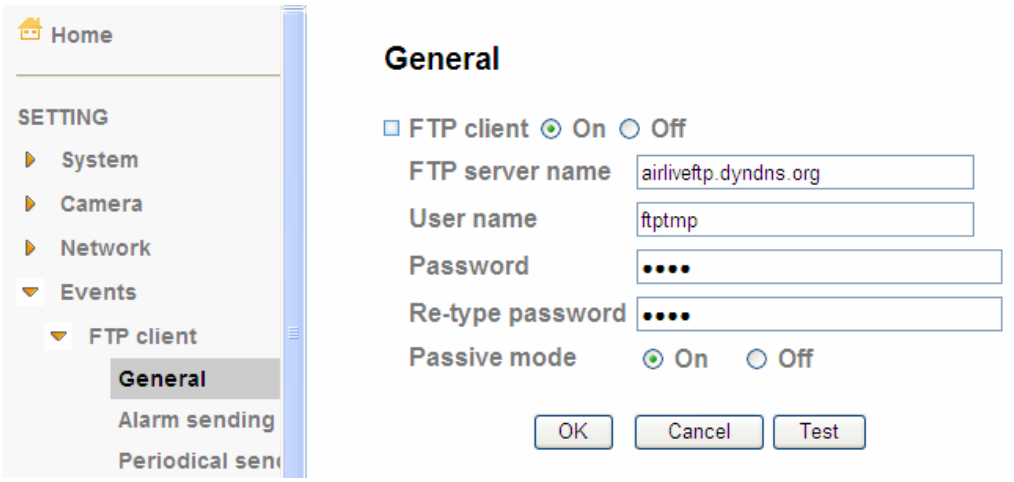
When privacy turns on, only those users in allow list can access the camera.

5.4. Events

5.4.1. FTP Client

5.4.1.1. General

Use this menu to set up for capturing and sending images to an FTP server. By using FTP client function, you can send the **image file** which has been shot and recorded linked with the built-in motion detection function to FTP server. FTP client setting menu is composed of two tabs, **General**, **Alarm sending** and **Periodical sending**.



- **FTP server name**

Type the FTP server name to upload still images up to 64 characters, or the IP address of the FTP server.

- **User name**

Type the user name for the FTP server.

- **Password**

Type the password for the FTP server.

- **Retype password**

To confirm the password, type the same characters as you typed in the Password box.

- **Passive mode**

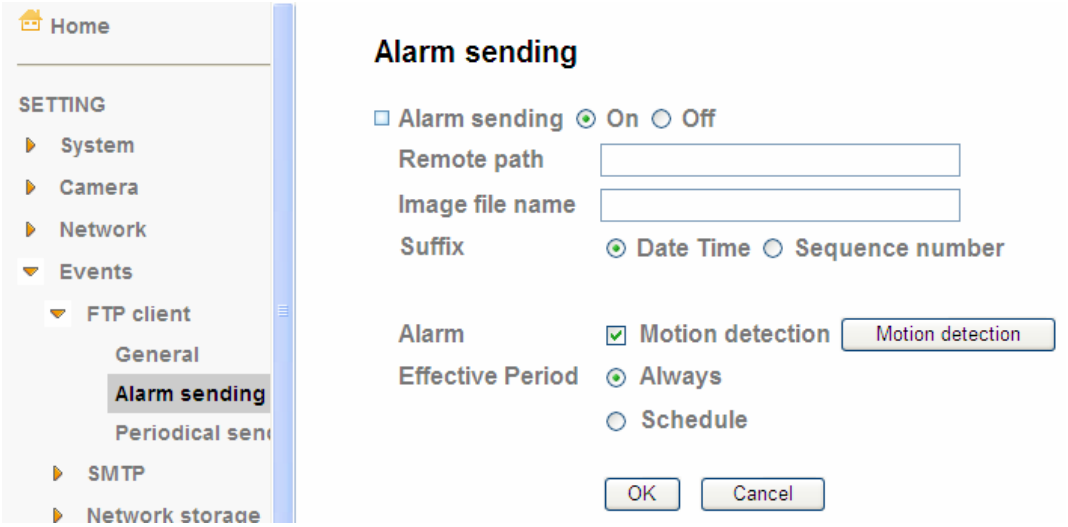
Set whether you use the passive mode of FTP server or not when connecting to FTP server. Select On to connect to FTP server using the passive mode.

Note

The frame rate and operability on the main viewer may decrease while a file is being transmitted by the FTP client function.

5.4.1.2. Alarm sending

Set to forward the **image file** to the specified FTP server linked with the alarm detection by the built-in motion detection function. Select **On** to send the image file to FTP server linked with the alarm detection.



- **Remote Path**

Type the path to the destination in FTP.

- **Image File Name**

Type the file name you want to assign to the images when sending to the FTP server.

Note

1. You can set motion detection at motion detection page.
2. You can set schedule function at schedule page.

- **Suffix**

Select a suffix to add to the file name.

- Date & time

  The date & time suffix is added to the Image file name.

- Sequence number

  The sequence number is added to the Image file name.

- Sequence number clear

  Click **Clear** and the suffix of the sequence number returns to 1.

- **Alarm**

- Motion Detection

  Click it on for using Motion Detection function as a sensor.

- **Effective period**

Set the period when the periodical sending is effective.

- Always

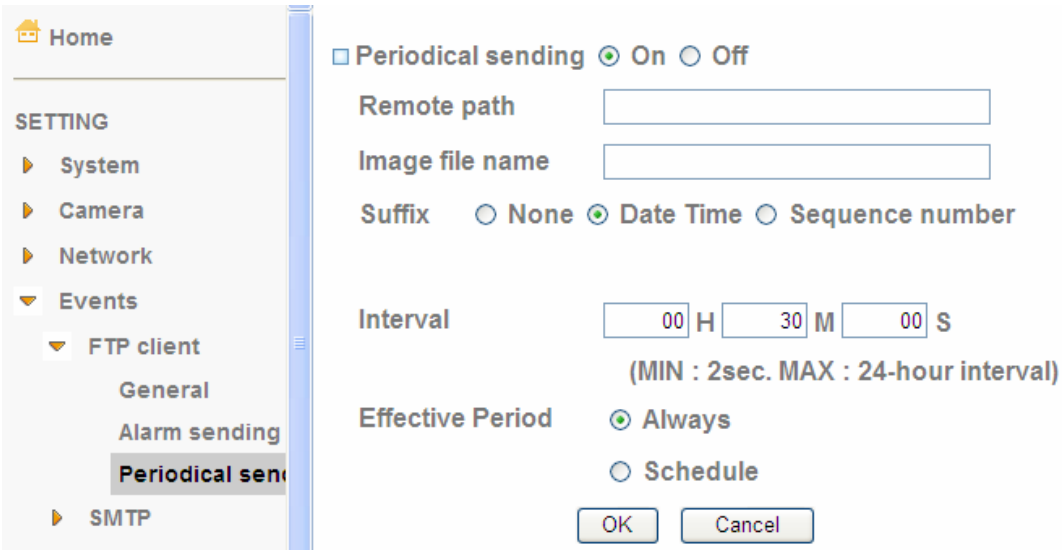
  The periodical sending is always effective.

- Schedule

  You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

5.4.1.3. Periodical Sending

You can set to send an image file to FTP server periodically by selecting **On** to send the image file to FTP server linked with setting period.



- **Remote Path**

Type the path to the destination in FTP.

- **Image File Name**

Type the file name you want to assign to the images when sending to the FTP server.

Note

You can set schedule function at schedule page.

- **Suffix**

Select a suffix to be added to the file name sent by SMTP.

- None
  The name of the sent file will be the Image file name.
- Date & time
  The date & time suffix is added to the Image file name.
- Sequence number
  The sequence number is added to the Image file name.
- Sequence number clear
  Click **Clear** and the suffix of the sequence number returns to 1.

- **Interval**

Set the periodical sending is effective interval.

- **Effective period**

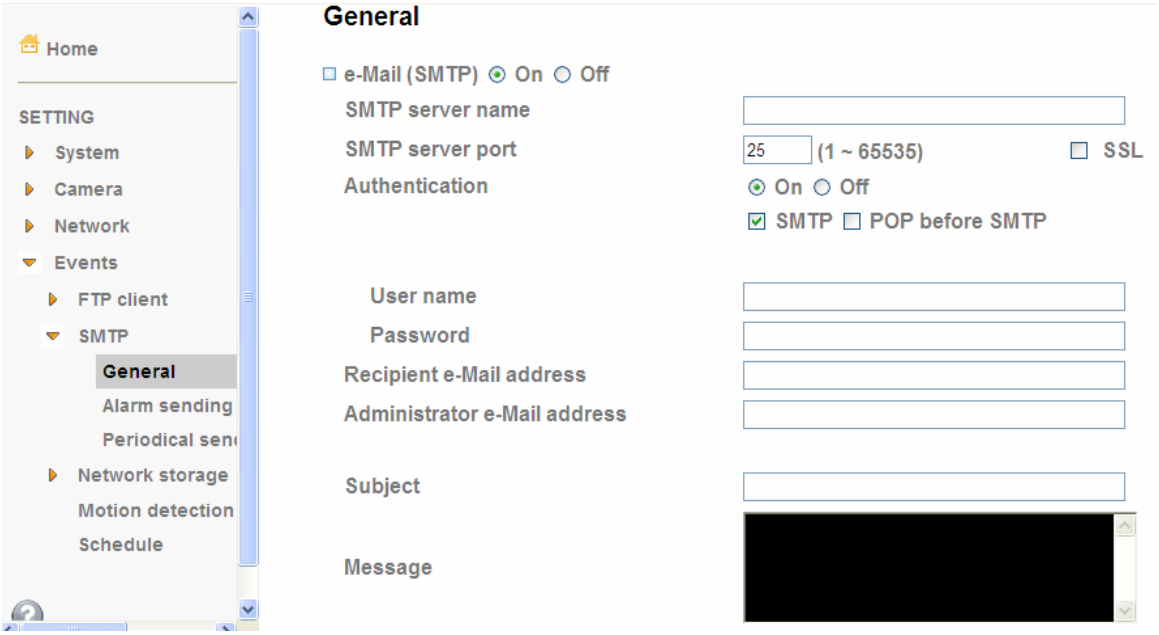
Set the period when the periodical sending is effective.

- Always
  The periodical sending is always effective.
- Schedule
  You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

5.4.2. SMTP

5.4.2.1. General

You can send a mail with attached image file which shot by external sensor input and motion detections or shot periodically.



- **SMTP Server Name**

Type the SMTP server name or the IP address

- **SMTP Server Port**

Set port number of your mail server. The default value is 25. Tick SSL box if the mail server you use has security restriction.

- **Authentication**

Required when you send an email.

- **SMTP**

Select if SMTP authentication is necessary when an e-mail is sent.

- **POP before SMTP**

Select if POP before SMTP authentication is necessary when an e-mail is sent.

- POP server name
  Type the POP server name of the user.
- User name, Password
  Type the user name and Password of the user.

- **Recipient e-mail address**

Type up to 3 recipient e-Mail addresses.

- **Administrator e-mail address**

This address is used for reply mail and sending system messages from the SMTP server.

- **Subject**

Type the subject/title of the e-Mail.

- **Message**

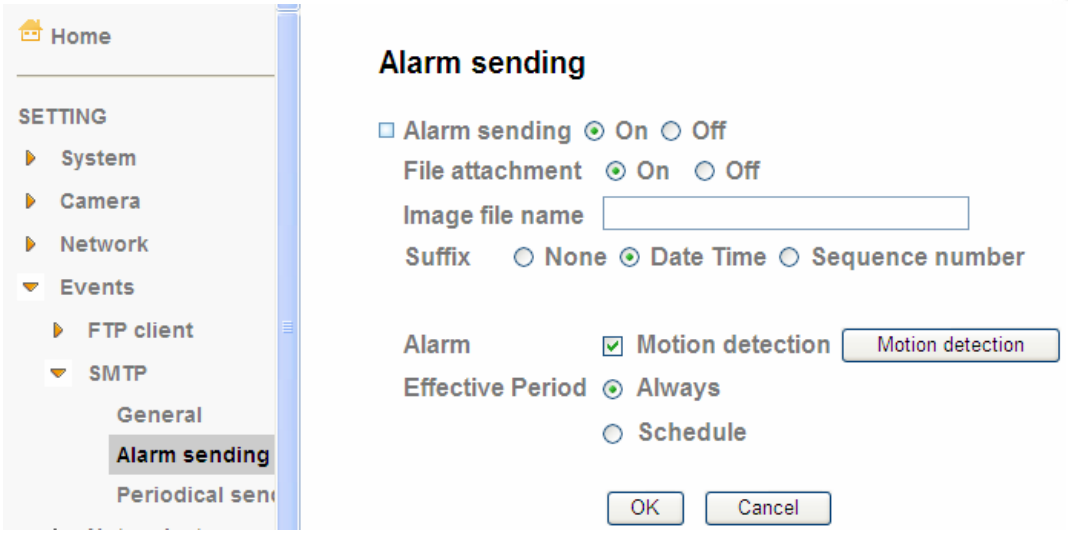
Type the text of the E-mail.

Note

If you use g-mail as your mail server, you should set 587 as your port number and tick SSL box.

5.4.2.2. Alarm Sending

Set to send the mail with connection to the alarm detection by the built-in motion detection function. Select On to send the image file to SMTP server linked with the alarm detection.



- **File attachment**

Set whether an image file is attached to the mail sent or not.

- **Image File Name**

Type the file name you want to assign to the images when sending to the FTP server.

Note

1. You can set motion detection at motion detection page.
2. You can set schedule function at schedule page.

- **Suffix**

Select a suffix to add to the file name.

- Date & time

  The date & time suffix is added to the Image file name.
- Sequence number

  The sequence number is added to the Image file name.
- Sequence number clear

  Click **Clear** and the suffix of the sequence number returns to 1.

- **Alarm**

- Motion Detection

  Click it on for using Motion Detection function as a sensor.

- **Effective period**

Set the period when the periodical sending is effective.

- Always

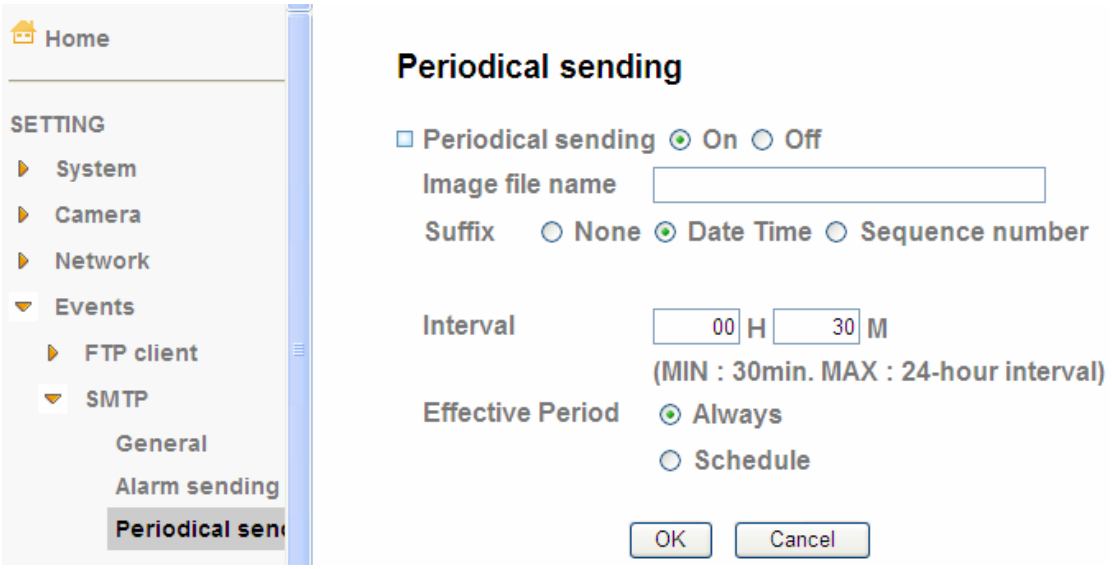
  The periodical sending is always effective.

- Schedule

  You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

5.4.2.3. Periodical Sending

You can set to send an image file by SMTP server periodically by selecting **On** to send the image file by SMTP server linked with setting period.



- **Image file name**

Type the file name of the image sent by SMTP up to 10 alphanumeric characters, - (hyphen) and _ (under score).

Note

You can set schedule function at schedule page.

- **Suffix**

Select a suffix to be added to the file name sent by SMTP.

- None
  The name of the sent file will be the Image file name.
- Date & time
  The date & time suffix is added to the Image file name.
- Sequence number
  The sequence number is added to the Image file name.
- Sequence number clear
  Click **Clear** and the suffix of the sequence number returns to 1.

- **Interval**

Set the periodical sending is effective interval.

- **Effective period**

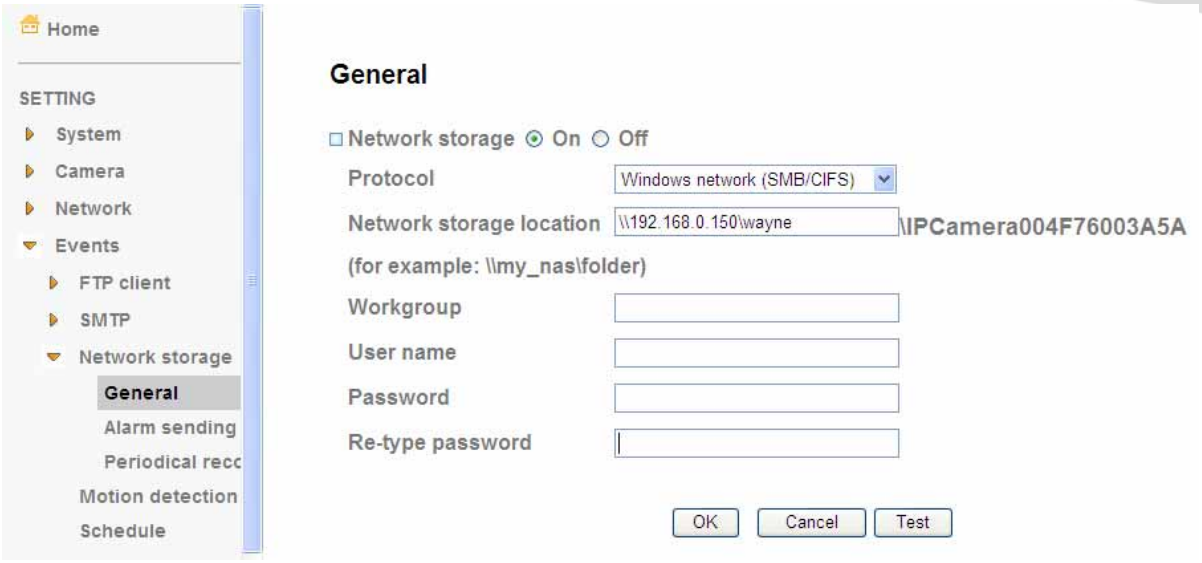
Set the period when the periodical sending is effective.

- Always
  The periodical sending is always effective.
- Schedule
  You can specify the period when the periodical sending is effective in the schedule setting in the other section.

5.4.3. Network Storage

5.4.3.1. General

Select On if you would like to use the network storage function. Then choose one protocol between Windows network (SMB/CIFS) and Unix network (NFS).



- **Protocol - Windows Network (SMB/CIFS):**
  - Network Storage Location

    Type the IP or name of specified computer and folder. For example, //IP/folder name or // my_nas/folder name.
  - Workgroup

    Type the name of workgroup which the operating computer belongs.
  - User Name & Password

    Type the name and password for workgroup.
  - Attached File Type

    You can choose snapshot or video clip for alarm sending. Select “Snapshot,” one snapshot will be transmitted to the specified network storage location while motion detection / audio detection / alarm input triggered. Select “Video clip,” one video clip which can be selected from 5 seconds to 60 seconds will be transmitted.
  - Test

    After setting the network storage location information, you can tick the test key to test if the connection between IP CAM and network storage location works.
- **Protocol- Unix network (NFS):**
  - Network Storage Location

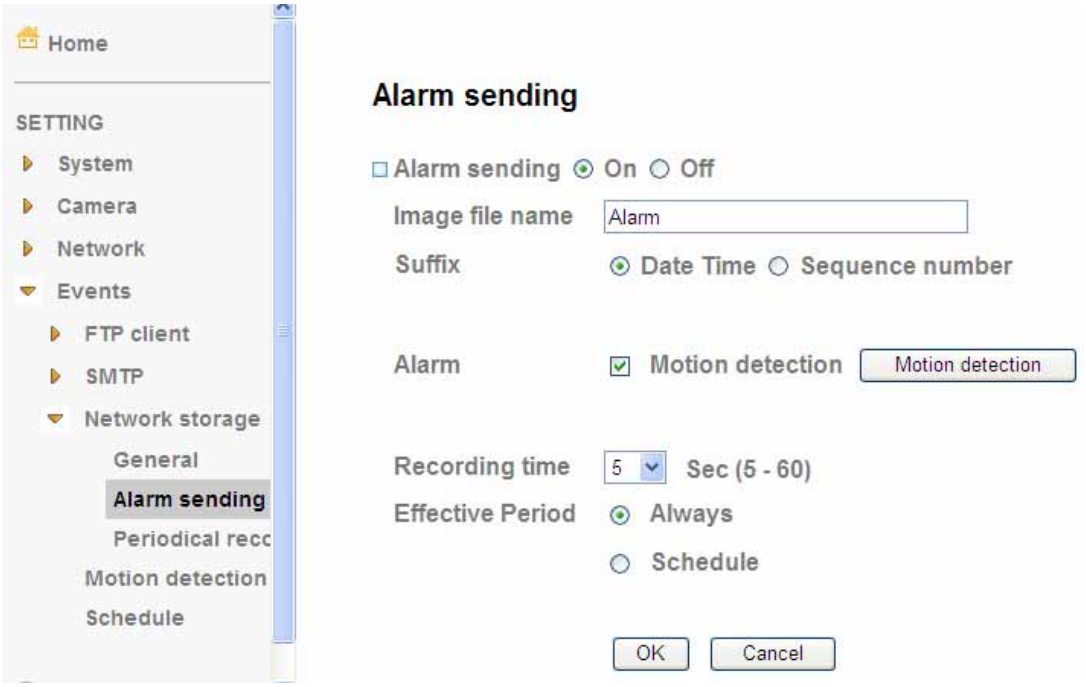
    Type the IP or name of specified computer and folder. For example, //IP/folder name or my_nas:/folder name.

- Test

  After setting the network storage location information, you can tick the test key to test if the connection between IP CAM and network storage location works.

5.4.3.2. Alarm Sending

Set to transmit the snapshot or video clip file with connection to the alarm detection. Select On to send the file to network storage location linked with the alarm detection.



- **Image File Name**

Type the file name you want to assign to the images when sending to the FTP server.

Note

1. You can set motion detection at motion detection page.
2. You can set schedule function at schedule page.

- **Suffix**

Select a suffix to add to the file name.

- Date & time
  The date & time suffix is added to the Image file name.
- Sequence number
  The sequence number is added to the Image file name.
- Sequence number clear
  Click **Clear** and the suffix of the sequence number returns to 1.

- **Alarm**

- Motion Detection
  Click for using **Motion Detection** function as a sensor.

- **Recording Time**

Select recording time from 5 to 60 minutes.

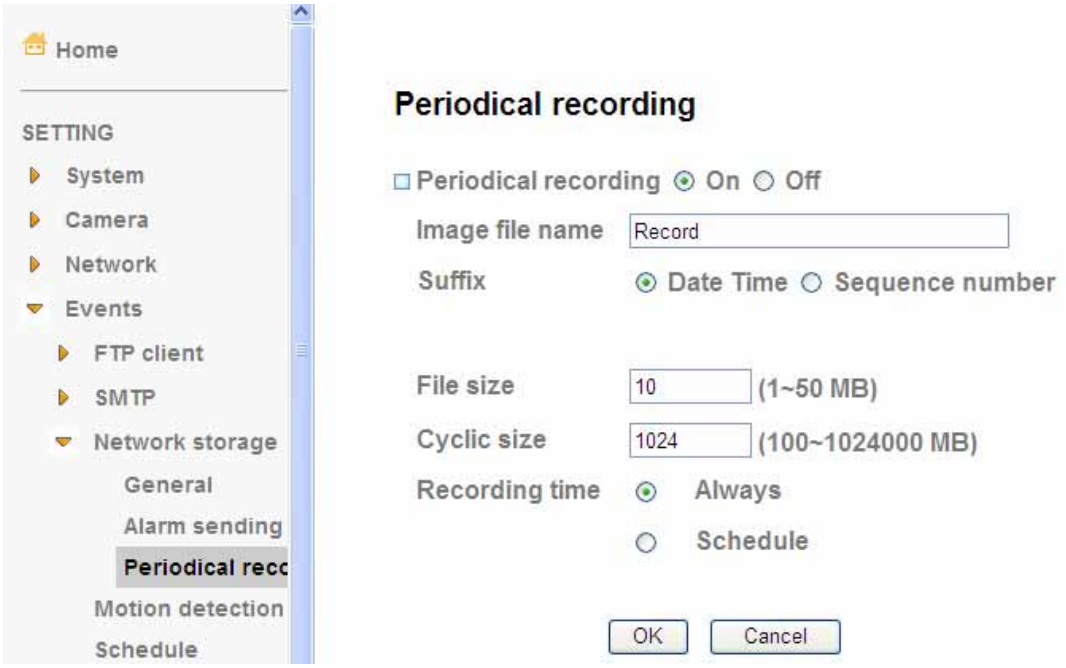
- **Effective period**

Set the period when the periodical sending is effective.

- Always
  The periodical sending is always effective.
- Schedule
  You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

5.4.3.3. Periodical Sending

You can set to send an image file by SMTP server periodically by selecting **On** to send the image file by SMTP server linked with setting period.



- **Image file name**

Type the file name of the image sent by SMTP up to 10 alphanumeric characters, - (hyphen) and _ (under score).

- **Suffix**

Select a suffix to be added to the file name sent by SMTP.

- Date & time
  The date & time suffix is added to the Image file name.
- Sequence number
  The sequence number is added to the Image file name.
- Sequence number clear
  Click **Clear** and the suffix of the sequence number returns to 1.

- **File Size**

The file size of image or video clip transmitted to the network storage location can't over 50MB.

- **Cyclic Time**

The total amount of files transmitted to the network storage location has to be in the range from 100 to 1024000MB.

- **Recording Time**

Set the period when the periodical sending is effective.

- Always

  The periodical sending is always effective.

- Schedule

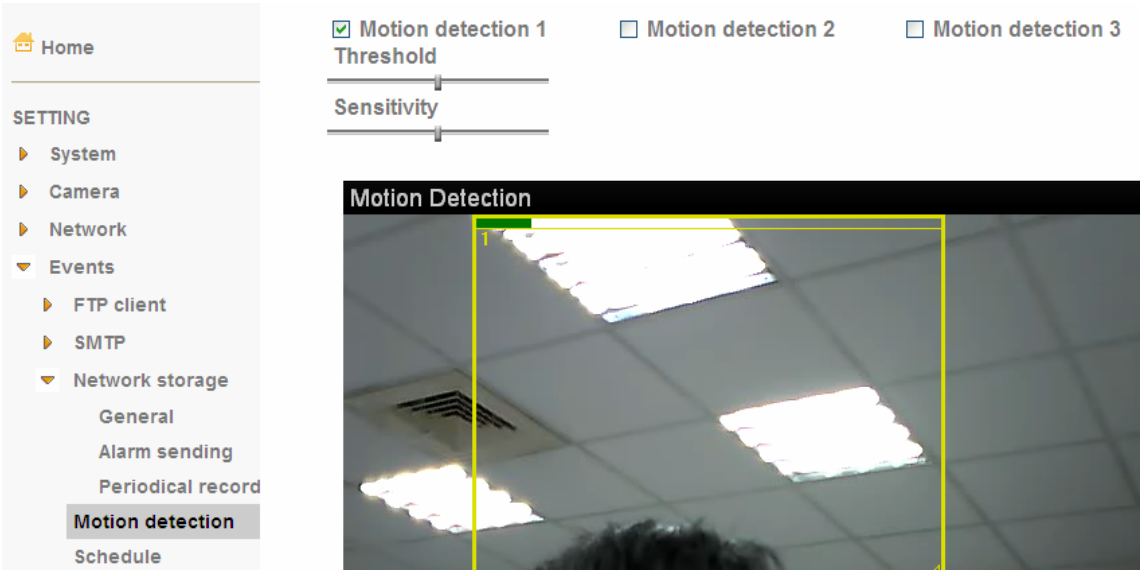
  You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

Note

You can set schedule function at schedule page.

5.4.4. Motion Detection

There are three Motion Detection functions as sensors to set for different detecting zones. Each one has Threshold and Sensitivity inputs which you can adjust to specific zone sequentially. Motion Detection function can support to FTP, SMTP and HTTP for capturing and sending images.



- **Threshold**

It means the extent which the alarm will be triggered.

- **Sensitivity**

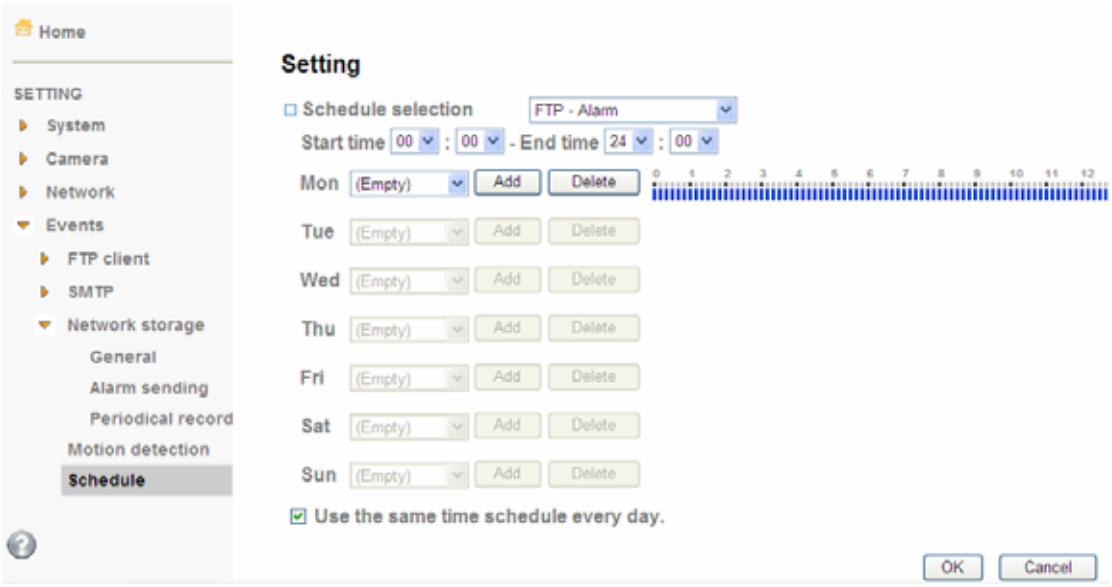
It means that how often the sensor will scan the image different. The higher sensitivity it is and the more frequently it scans.

- **Motion Detection 1, 2 and 3**

Click it on for using **Motion Detection 1, 2 and 3** function as a sensor. You can adjust and move the detecting zone by using mouse.

5.4.5. Schedule

This is the same menu as the setting menu which is displayed when you click **Schedule** to set Effective period and Schedule in **FTP** client setting menu and e-Mail (**SMTP**) setting menu.



- **Schedule Selection**

Select the list box to specify the schedule you want to set.

- FTP -Alarm
- FTP - Periodical

- e-Mail (SMTP) -Alarm
- e-Mail (SMTP) -Periodical

• **Mon (Monday) to Sun (Sunday)**

The time period on the right of the checked day is the effective period of the schedule.

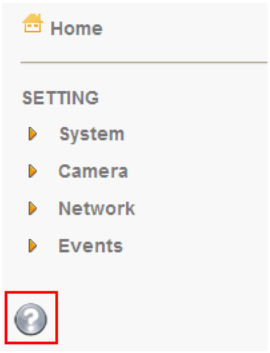
- Start time, End time

  Specify the **Start time** and the **End time.**
- Use the same time schedule every day

  When this is checked, the **Start time** and **End time** set to **Mon** (Monday) are applied to all days. In this case, the **Start time** and **End time** of the other days than **Mon** (Monday) cannot be input.

5.5. Help

HELP is an online help and support. It provides solutions immediately.



HELP

System

Information
Day/Time
Account
System Log
Initialize

Camera

General
MPEG4 – Computer View
MPEG4 – Mobile View
MJPEG

Network

Information
EZvuu
PPPoE
DDNS
UPnP
IP Notification
WPS
Wireless
Messenger

6 Appendix

- **Frame Rate and Bitrate Table**

MPEG4 @ 30fps / Kbps
MPEG4 / Kbps, fps
MJPEG @ 15fps / Kbps
MJPEG / Kbps, fps

- **Storage Requirement Table**

MPEG4 Storage Requirement GB / channel / day @ 30fps
MPEG4 Storage Requirement GB / channel / day @ 15fps
MPEG4 Storage Requirement GB / channel / day
MJPEG Storage Requirement GB / channel / day @ 15fps
MJPEG Storage Requirement GB / channel / day

Appendix A. - Frame Rate and Bitrate Table

- **MPEG4 @ 30fps / Kbps**

Quality	640*480	320*240	160*120
Excellent	1000	300	90
Detailed	400	150	50
Good	300	100	30
Standard	250	70	25
Medium	250	55	20

- **MPEG4 / Kbps, fps**

Image-Size	Bitrate Setting	Frame-Rate	Current	Current
640*480	2048	30	1800	26
640*480	2048	15	2200	16
640*480	1536	30	1500	30
640*480	1536	15	1700	16
640*480	1024	30	1000	30
640*480	1024	15	1000	16
640*480	512	30	500	30
640*480	512	15	600	16
320*240	1536	30	1500	30
320*240	1536	15	1600	16
320*240	1024	30	1000	30
320*240	1024	15	1000	16
320*240	512	30	550	30
320*240	512	15	600	16
160*120	1024	30	950	30
160*120	1024	15	750	16
160*120	512	30	500	30
160*120	512	15	50	16
160*120	128	30	130	30
160*120	128	15	140	16

- **MJPEG @ 15fps / Kbps**

Quality	640*480	320*240	160*120
Excellent	4000	1500	600
Detailed	2400	900	400
Good	1600	650	300
Standard	1300	500	240
Medium	900	350	170

- **MJPEG / Kbps, fps**

Image-Size	Quality Setting	Frame-Rate	Current	Current Frame-Rate
640*480	Excellent	15	4000	13
640*480	Excellent	5	1600	5
640*480	Good	15	1600	13
640*480	Good	5	650	5
640*480	Medium	15	900	14
640*480	Medium	5	360	5
320*240	Excellent	15	1500	13
320*240	Excellent	5	550	5
320*240	Good	15	650	13
320*240	Good	5	260	5
320*240	Medium	15	350	13
160*120	Medium	5	130	5
160*120	Excellent	15	600	13
160*120	Excellent	5	230	5
160*120	Good	15	300	13
160*120	Good	5	115	5
160*120	Medium	15	170	13
160*120	Medium	5	65	5

Appendix B. - Storage Requirement Table

- **MPEG4 Storage Requirement GB / channel / day @ 30fps**

Quality	640*480	320*240	160*120
Excellent	10.5	3.2	0.9
Detailed	4.2	1.6	0.5
Good	3.2	1.1	0.3
Standard	2.6	0.7	0.3
Medium	2.6	0.6	0.2

- **MPEG4 Storage Requirement GB / channel / day @ 15fps**

Quality	640*480	320*240	160*120
Excellent	5.3	1.6	0.4
Detailed	2.1	0.8	0.3
Good	1.6	0.6	0.2
Standard	1.3	0.4	0.1
Medium	1.3	0.3	0.1

- **MPEG4 Storage Requirement GB / channel / day**

Image-Size	Bitrate Setting	Frame-Rate Setting	Current Bitrate
640*480	2048	30	23.0
640*480	2048	15	22.2
640*480	1536	30	18.5
640*480	1536	15	17.9
640*480	1024	30	10.5
640*480	1024	15	10.5
640*480	512	30	5.3
640*480	512	15	6.3
320*240	1536	30	15.8
320*240	1536	15	16.9
320*240	1024	30	10.5
320*240	1024	15	10.5
320*240	512	30	5.8
320*240	512	15	6.3
160*120	1024	30	10.0
160*120	1024	15	7.9
160*120	512	30	5.3
160*120	512	15	0.5
160*120	128	30	1.4
160*120	128	15	1.5

- **MJPEG Storage Requirement GB / channel / day @ 15fps**

Quality	640*480	320*240	160*120
Excellent	42.2	15.8	6.3
Detailed	25.3	9.5	4.2
Good	16.9	6.9	3.2
Standard	13.7	5.3	2.5
Medium	9.5	3.7	1.8

- **MJPEG Storage Requirement GB / channel / day**

Image-Size	Bitrate Setting	Frame-Rate	Current Bitrate
Image-Size	Quality Setting	Frame-Rate Setting	Current Bitrate
640*480	Excellent	15	42.2
640*480	Excellent	5	16.9
640*480	Good	15	16.9
640*480	Good	5	6.9
640*480	Medium	15	9.5
640*480	Medium	5	3.8
320*240	Excellent	15	15.8
320*240	Excellent	5	5.8
320*240	Good	15	6.9
320*240	Good	5	2.7
320*240	Medium	15	3.7
160*120	Medium	5	1.4
160*120	Excellent	15	6.3
160*120	Excellent	5	2.4
160*120	Good	15	3.2
160*120	Good	5	1.2
160*120	Medium	15	1.8
160*120	Medium	5	0.7